

Contents

EXECUTIVE SUMMARY	1
Use Case	1
OBJECTIVE	2
BUILDING THE ERP CLOUD IMPORT AP Invoices (FBDI) USE CASE	2
Prerequisites	3
Creating the AP Invoices Import Integration	3
Fetch the AP Invoices zip file from FTP (FTP Adapter)	5
Send the file over to ERP Cloud, Select ERP Connection to Invoke (ERP Cloud Adapter)	8
Configure Business Tracking Identifiers	12
Create Callback Integration	13
Configure Business Tracking Identifiers for Callback flow	31
Activate Callback Integration	32
Complete Callback Config in the Invoice Bulk Import to ERP Import Flow	34
Run the Invoice Bulk Import to ERP Import Flow	37
Generate APIInvoices Data	37
Test Invoice Bulk Import to ERP integration flow	41
Trouble Shooting	46

EXECUTIVE SUMMARY

Oracle Integration Service provides native connectivity to Oracle and non-Oracle Software as a Service (SaaS) and On-premises applications, such as Oracle ERP Cloud, Oracle Service Cloud, HCM Cloud, Salesforce.com, Workday, EBS, SAP, and NetSuite and so on. Oracle Integration (OIC) adapters simplify connectivity by handling the underlying complexities of connecting to applications using industry-wide best practices. You only need to create a connection that provides minimal connectivity information for each system.

Use Case

This use case explores the use of Oracle Integration (OIC) with ERP Cloud Import Bulk Data services with File-based Data Integration (FBDI) compliant files in order to import ERP data such as Account Payable Invoices using processes in ERP Cloud.

- User places FBDI based AP Invoices file into an FTP location
- Oracle Integration (OIC) imports AP Invoices file into ERP Cloud
- Oracle Integration (OIC) receives callback from ERP Cloud
- Oracle Integration (OIC) displays rejected invoices on VBCS web application

We will explore ERP adapter capabilities & VBCS features to handle exceptions, including:

- How to read files from SFTP location
- How to Synchronize AP Invoices to ERP Cloud with minimal effort
- How to receive callback's from Oracle ERP Cloud
- How VBCS helps building a dashboard to introspect exceptions or import rejections

Note: Since there are multiple attendees sharing a single Oracle Integration (OIC) environment, please use the <ClassID> <StudentID> (Instructor will provide this information) as a suffix to uniquely identify your:

- **Connections**

e.g. If your <ClassID> is 06 and your <StudentID> is 96, then you will name your connections as **RightNow Conn 96 06**

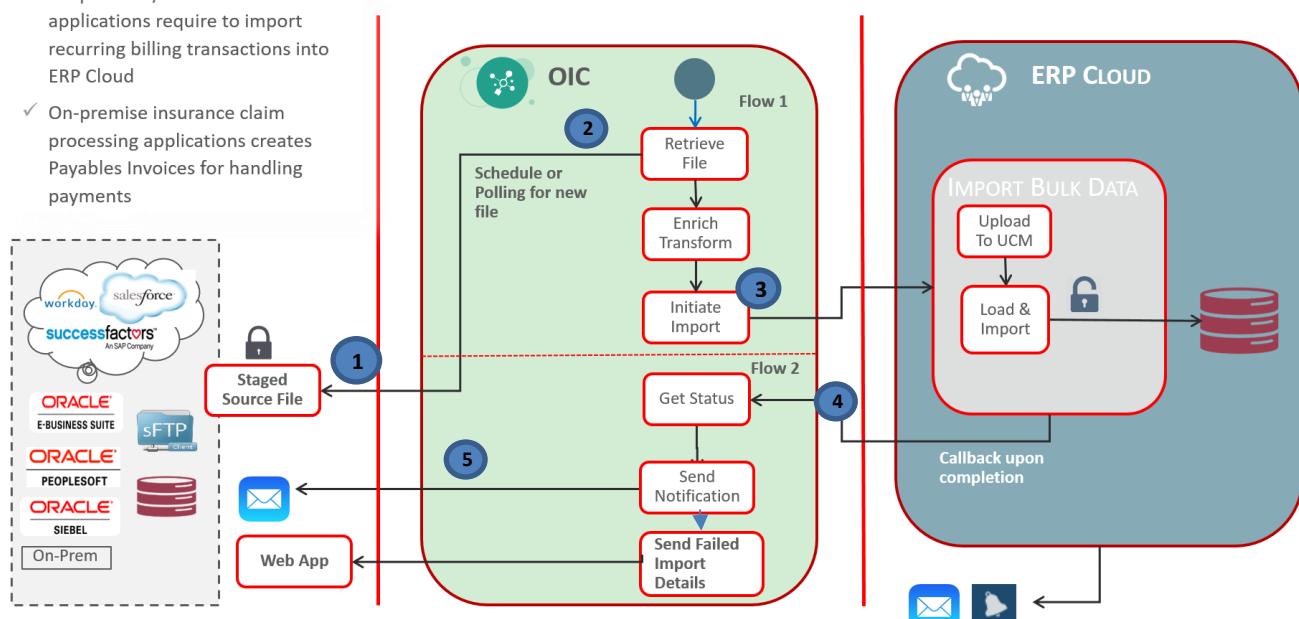
- **Integration flows**

e.g. If your <ClassID> is 06 and your <StudentID> is 96, then you will name your integration flows as **Integration Flow Name 96 06**

The following diagram illustrates the proposed interaction between the systems involved in this use case.

ERP Cloud Bulk Import integration (FBDI Compliant) Oracle Integration

- ✓ On-premise / PaaS based applications require to import recurring billing transactions into ERP Cloud
- ✓ On-premise insurance claim processing applications creates Payables Invoices for handling payments



OBJECTIVE

This document walks you through the steps needed to replicate this use case in your environment

BUILDING THE ERP CLOUD IMPORT AP Invoices (FBDI) USE CASE

This section works through the steps that are required to build the integration from scratch.

Prerequisites

You will need access to the following applications and products:

- Oracle Integration (OIC)
- ERP Cloud R13+
- An FTP Server
- apinvoices.zip

Connections, based on ERP Cloud and FTP and REST (connecting to VBCS application) Oracle Integration (OIC) Adapters

It is assumed that the following Connections have been created and configured.

Connection Name	Connection Type
ERP Conn 96 06	ERP Adapter
FTP Conn 96 06	FTP Adapter
Rejection UI VBCS REST Conn 96 06	VBCS App

Creating the AP Invoices Import Integration

1. On the Oracle Integration (OIC) home page, click **Integrations**.
2. On the Integrations page, click **Create**. The Create Integration - Select a Style/Pattern dialog is displayed.
3. Select **Scheduled Orchestration** type of integration. The **Create New** Integration dialog is displayed.
4. Enter the following information:

Field Element	Value
What do you want to call your integration?	Invoice Bulk Import to ERP <student_id> <class_id>
Identifier	Accept the default identifier value. The identifier is the same as the integration name you provided, but in upper case.
Version	Accept the default version number of 01.00.0000. Alternatively, if you want to change the version number, enter the version using numbers only in this format: xx.xx.xxxx.
What does this integration do?	This integration demonstrates the use of OIC's ERP Cloud Adapter along with the FTP adapter fetching a AP Invoices file and importing it into ERP Cloud, and then receiving a call back from ERP Cloud
Which package does this integration belong to?	Leave blank

Create Integration - Select a Style

How would you like to build your integration? Select a style to use.

App Driven Orchestration  Multi-step Integration flow triggered by an Application or API. <input type="button" value="Select"/>	Scheduled Orchestration  Multi-step Integration flow triggered by a Schedule. Commonly used for Batch/Bulk Integrations or File processing. <input type="button" value="Select"/>	File Transfer  Seamlessly and securely move files across the network. <input type="button" value="Select"/>
Basic Routing  Basic App to App Routing with Data Mapping. <input type="button" value="Select"/>	Publish To OIC  Publish messages from Apps to OIC Pub/Sub Channel. <input type="button" value="Select"/>	Subscribe To OIC  Subscribe to messages from OIC Pub/Sub Channel. <input type="button" value="Select"/>

Create New Integration



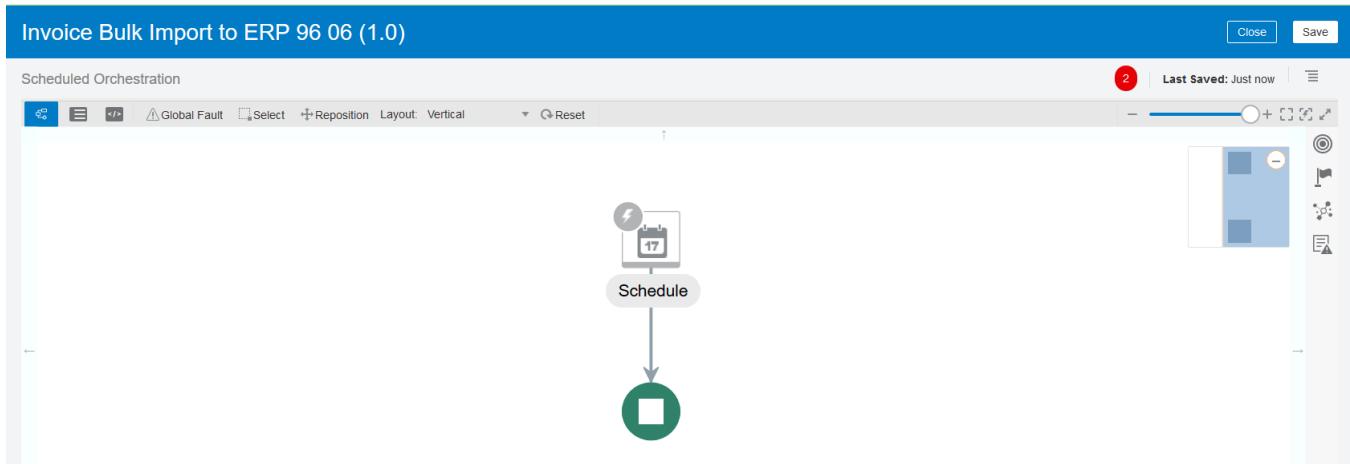
Create New Integration

Enter information that describes this integration.

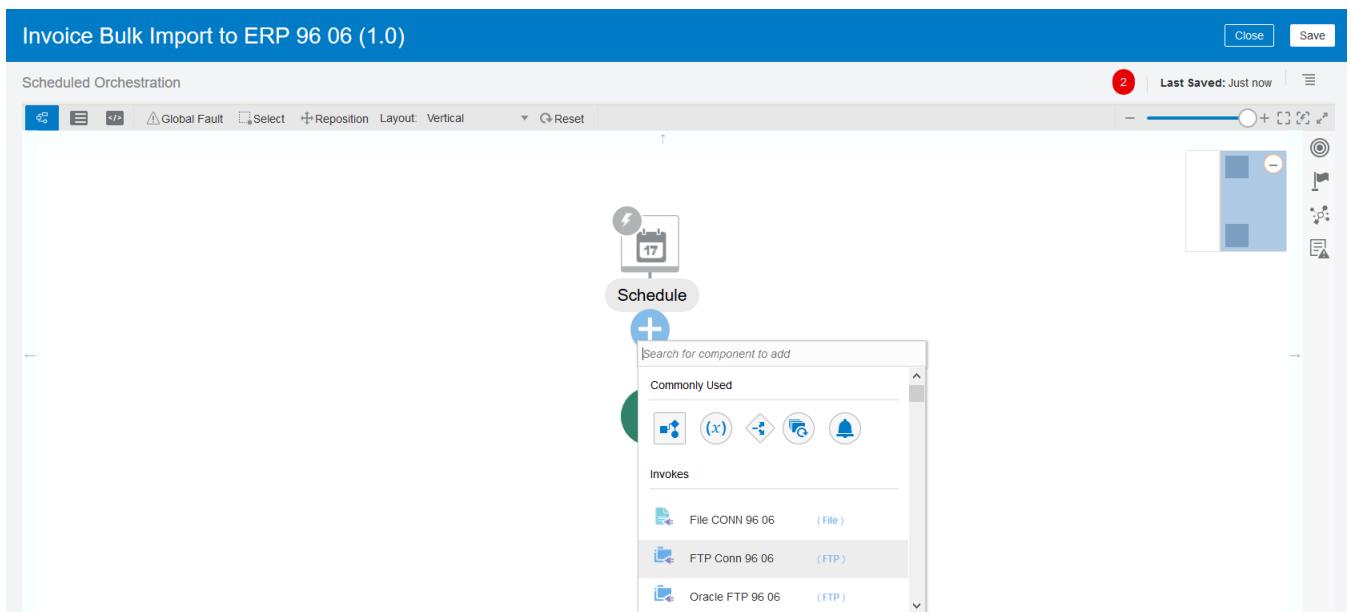
Describe this integration Use a meaningful name and description that will help others find and understand this integration. The Identifier and Version can be set only when the integration is created. The combination of Identifier and Version must be unique.

* What do you want to call your integration? Invoice Bulk Import to ERP 96 06	What does this integration do? This integration demonstrates the use of OIC's ERP Cloud Adapter along with the FTP adapter fetching a AP Invoices file and importing it into ERP Cloud, and then receiving a call back from ERP Cloud
* Identifier INVOIC_BULK_IMPORT_TO_ERP_96_06	
* Version 01.00.0000	Which package does this integration belong to? erp.inbound.lab

5. Click **Create**. The integration canvas is displayed.



Fetch the AP Invoices zip file from FTP (FTP Adapter)



1. Hover over the wire between Schedule and Stop, and click on the + sign
2. Select the FTP Connection (FTP Conn 96 06) from the list
3. Enter details as in the screenshot below to define the endpoint in the flow

Oracle Adapter Endpoint Configuration Wizard

Welcome to the Oracle Adapter Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the Oracle FTP adapter.

Basic Info

* What do you want to call the endpoint?
ReadAPInvoicesFileFromFTP

What does this endpoint do?
This will fetch FBDI Compliant AP Invoices file from FTP location

4. In the next screen, select “Read a File” as the option and ASCII as the transfer mode
 5. For the directory name, make sure you add `/upload/public_ftp/<>YOURNAME>/in`. For the file name “apinvoiceimport.zip”.
- Note: Please cross check the directory you have mentioned here in the FTP location, (FTP details are given in the text file along with this guide). If a directory is not there, create a directory.
And with respect to the apinvoiceimport.zip file, you would be creating at the end of this guide.

Oracle Adapter Endpoint Configuration Wizard

Configure the Operation Parameters for the Target FTP Endpoint
Select the operation to perform and define the parameters required for target FTP endpoint.

Operations

* Select Operation: Read a File
* Select a Transfer Mode: ASCII
Input Directory: /upload/erp/inbound/96/in
File Name: apinvoiceimport.zip

6. Do you want to specify the structure for the contents of the file – select No. Review Summary page and click Done

Oracle Adapter Endpoint Configuration Wizard

Welcome to the Oracle Adapter Endpoint Configuration Wizard
This wizard helps you configure the processing details.

Basic Info
 Operations
Schema
File Contents - Definition
Summary

Do you want to specify the structure for the contents of the file?
 Yes No

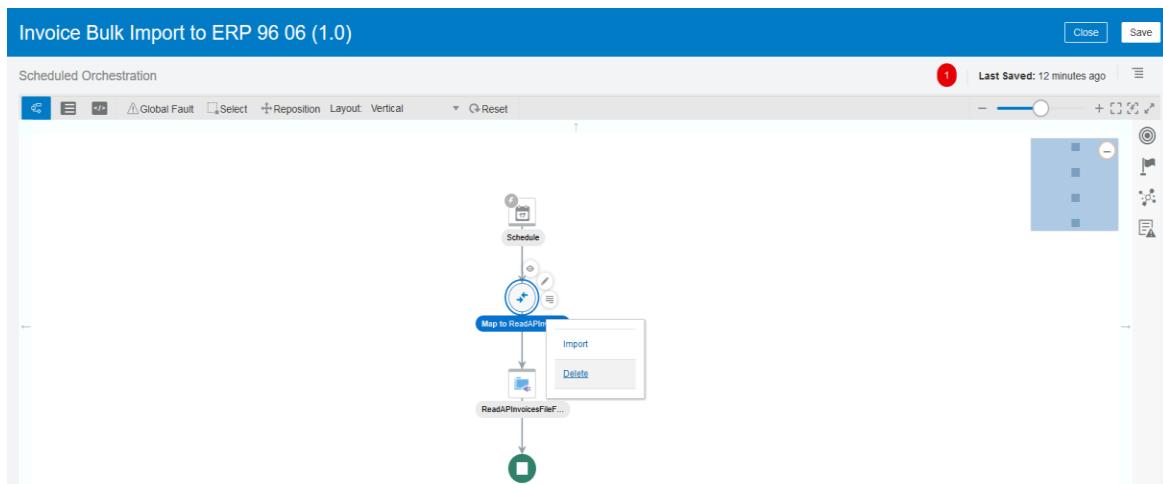
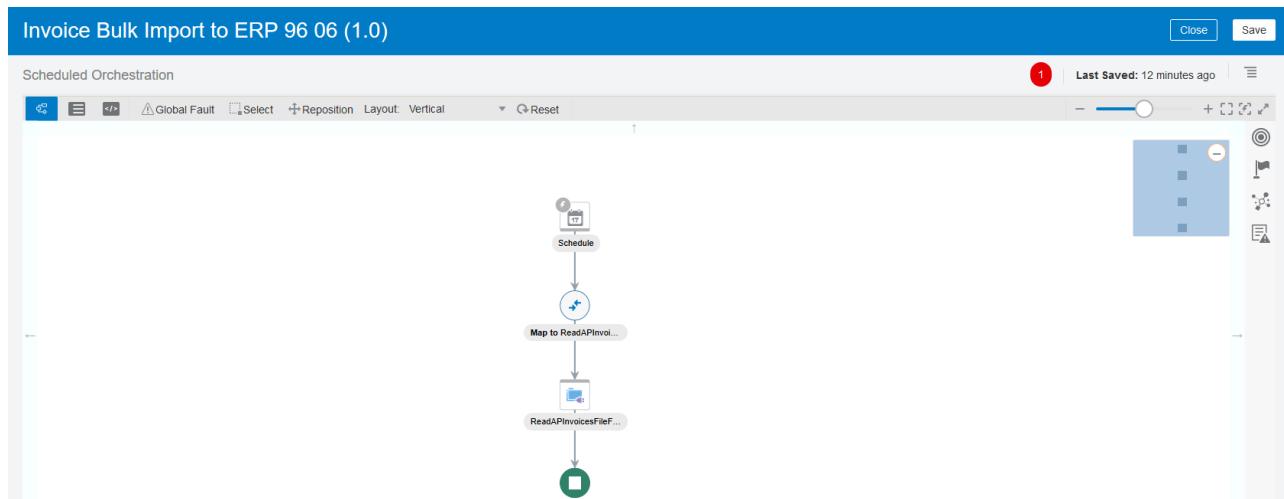
Oracle Adapter Endpoint Configuration Wizard

Oracle Adapter Endpoint Configuration Summary.
Success! Your Oracle adapter endpoint configuration is complete.

Basic Info
 Operations
 Schema
File Contents - Definition
Summary

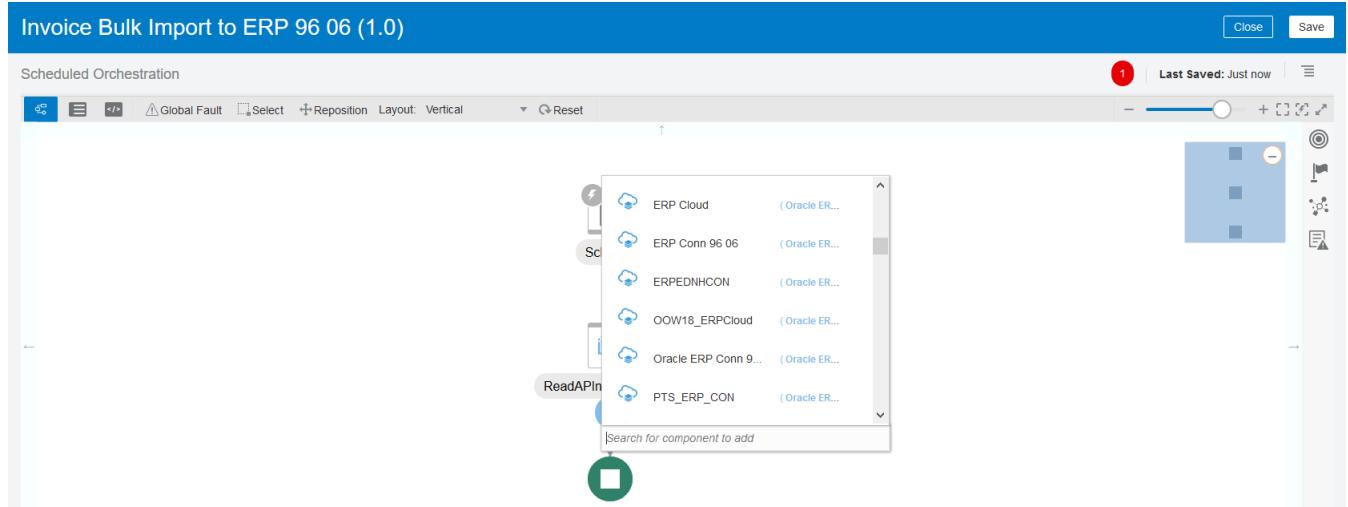
 ReadAPInvoicesFileFromFTP
Description This will fetch FBDI Compliant AP Invoices file from FTP location
Operation Read a File
Transfer Mode ASCII
Input Directory /upload/erp/inbound/96/in
File Name apinvoiceimport.zip

7. You will see your new FTP endpoint in the flow and a Mapping action that has been added automatically as well. Since we are not passing parameters through the Schedule action in this particular case, it is safe to delete the Mapping action. Click on the Delete option for the Mapping action and Confirm.



Send the file over to ERP Cloud, Select ERP Connection to Invoke (ERP Cloud Adapter)

1. Next, we add our ERP Cloud endpoint to the flow. Hover on the wiring between the FTP endpoint and STOP action, and click on the + sign
2. Select the ERP Connection **ERP Conn 96 06**



3. Enter the name and description for the ERP endpoint as follows

Welcome to the Oracle ERP Cloud Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the Oracle ERP Cloud connection. You will be asked to specify configuration parameters and define an operation for the service.

Basic Info

Actions: ImportAPInvoicestoERPCloud

Operations: Using this adapter, send to UCM in ERP Cloud, invoke process to upload data and configure callback to receive from ERP Cloud

4. Select the *Import Bulk Data into Oracle ERP Cloud* option

Welcome to the Oracle ERP Cloud Endpoint Configuration Wizard
This wizard helps you select one of the capabilities of Oracle ERP Cloud Adapter

Actions

Basic Info: What would you like to do with Oracle ERP Cloud Adapter?

- Query, Create, Update or Delete Information
Perform operations such as Find Catalog, Create Orders, Update Accounts, Process Expenses etc
- Import Bulk Data into Oracle ERP Cloud
Perform FBDI-compliant bulk operations such as Import Asset Leases, Journal Entries, Bank Statements, Payable Invoices, Project Tasks, Sales Orders, Shipping Transactions etc. You can also configure event notifications and callbacks on these operations.
- Send Files to ERP Cloud
Upload files to Universal Content Management (UCM) in ERP Cloud. Note that once the files are uploaded, you will need to add a separate action in your integration flow to invoke the appropriate scheduled process or API in ERP Cloud to process the file. Use this option only when you cannot use the Import Bulk Data option above which automatically takes care of all this.

Learn more about these Actions

5. Select the *Import Payable Invoices* process. Leave the rest of the options at default.

Configure the Operations to Perform in the Target Oracle ERP Application
Select the business object or service and operation to use for the target integration.

Operations

Actions: Select Bulk Data Import Process

Import Payables Invoices

Not seeing expected Bulk Data Import Processes?
Please check ERP user roles. Also check if the job is FBDI job or not. For more details see the Troubleshooting section in ERP adapter documentation.

Description
Creates Oracle Fusion Payables invoices from invoice data in the open interface tables.

6. Select the *Notification Mode* and *Occurrence* as below. These are settings on how the ERP Console will reflect the status of the process. You can set this right here in the adapter instead of having to go to the ERP Console.

Leave the *Enable Callback* checkbox unchecked for now. We will come back here to configure it when we have created the Callback flow a bit later.

Configure Oracle ERP Cloud Endpoint

Configure Oracle ERP Cloud Endpoint

Notifications
Please provide notification preferences for communicating job completion status.

* **Notification Mode**: Email & Bell Notification

* **Occurrence**: Send in any case

Enable Callback:

7. Review your choices in the Summary window and click *Done*

Configure Oracle ERP Cloud Endpoint

Oracle ERP Cloud Endpoint Configuration Summary
Oracle ERP Cloud endpoint configuration was successful.

ImportAPInvoicestoERPCloud

Description
Using this adapter, send to UCM in ERP Cloud, invoke process to upload data and configure callback to receive from ERP Cloud

Select Bulk Data Import Process: Import Payables Invoices

Job Property File

Additional Import Options

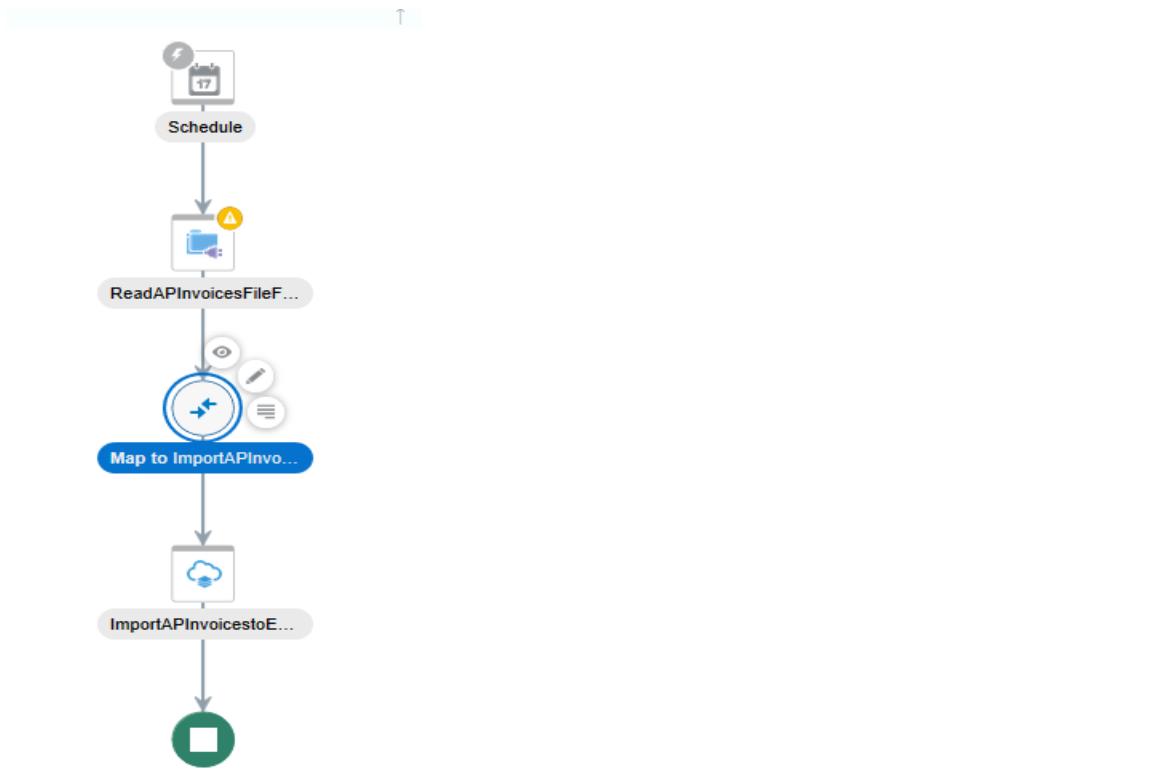
Notification Mode	Email & Bell Notification
Occurrence	Send in any case
Callback Enabled	No

Integration Flow Identifier

Integration Flow Version

Mandatory steps for BulkImport. Click below link.
[Prerequisites for Bulk Data Import](#)

8. You will see your new endpoint for ERP appear in the flow with the corresponding mapping action. Click on the mapping action, and then the pencil icon to edit the mapping



9. Map the *FileReference* and *Properties->filename* and *Properties->directory* elements from the FTP endpoint to the ERP endpoint as below in the mapper.

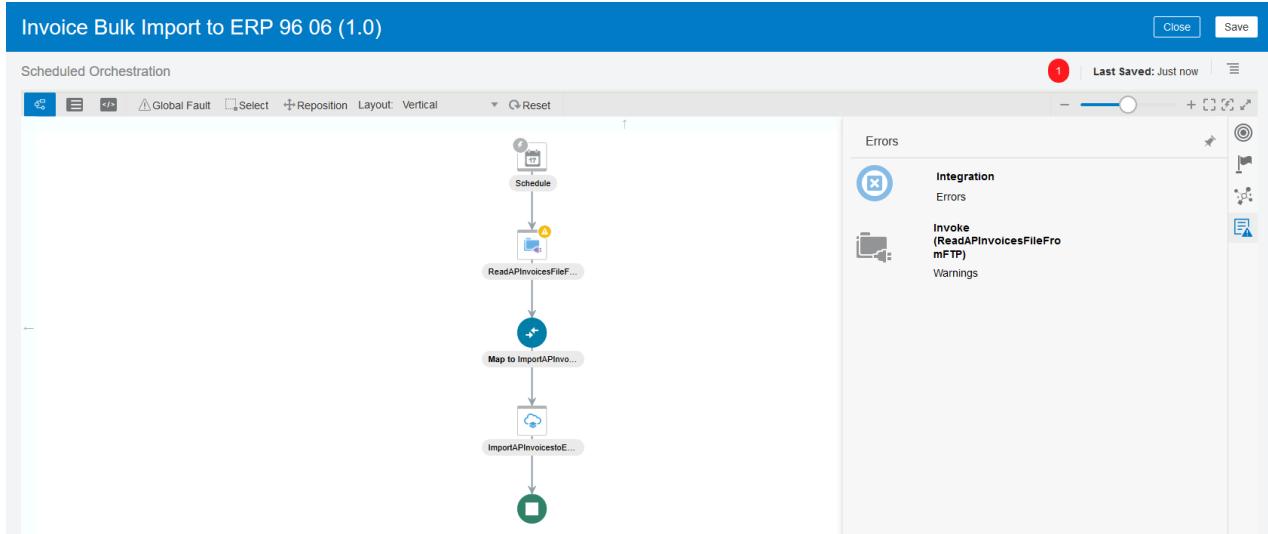
Source	Target
→ICS File→FileReference	→ICSFile→FileReference
→ICSFile→Properties→directory	→ICSFile→Properties→directory
→ICSFile→Properties→filename	→ICSFile→Properties→filename

10. Click on *Validate*. Once confirmed that your mapping is valid, click on *Close* to get out of the mapper.

11. This will now take you back to the flow designer.

Configure Business Tracking Identifiers

- Click on the red icon on the top right, which shows the number of errors in your flow. You should have 1 error at this point – when you hover over the Integration Errors icon, you will see the error is about missing business tracking identifiers



- Click on the hamburger icon at the top right, and select *Tracking*
- Drag the *schedule->startTime* to the first Tracking Field cell in the table on the right. Here you are configuring Oracle Integration (OIC) to identify instances of runs of this flow in the monitoring consoles with its start time as the unique ID

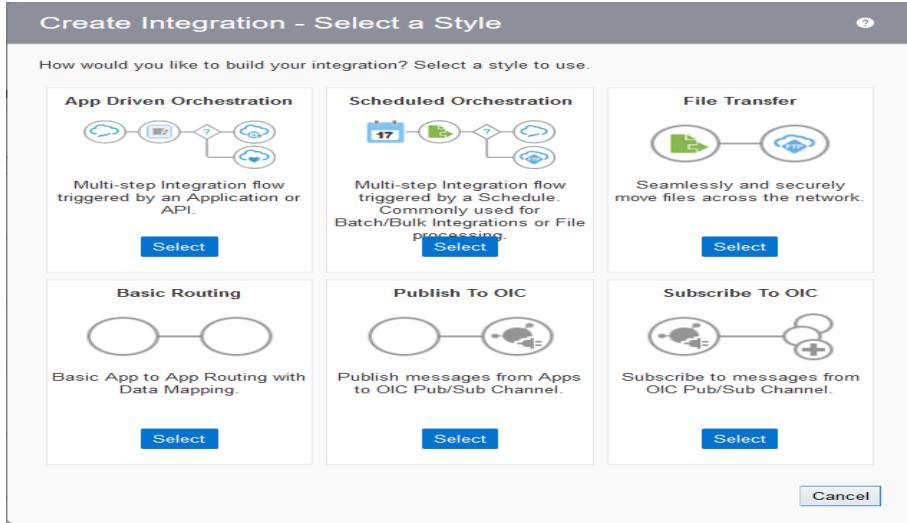
The screenshot shows the 'Business Identifiers For Tracking' configuration screen. At the top, it says 'Business Identifiers enable runtime tracking on messages. Specify up to three tracking fields. A primary identifier is required. It enables you to track fields across integration flows and is always available.' Below this, it says 'Additional business identifier fields are optional. At runtime, they are available for tracking only when this integration flow is selected.' A table below lists the tracking identifiers:

Primary	Tracking Field	Tracking Name	Tracking Variable	Help Text
<input checked="" type="checkbox"/>	startTime	start Time	tracking_var_1	How to track it?
	Drag a trigger field here	tracking_var_2	tracking_var_2	How to track it?
	Drag a trigger field here	tracking_var_3	tracking_var_3	How to track it?

- Click on **Save**. This will bring you back to the flow in the designer, and the red errors icon should no longer be there

Create Callback Integration

- Select *App Driven Orchestration* this time



- Enter Integration Name and Description as below and click on **Create**.

What do you want to call your Integration?

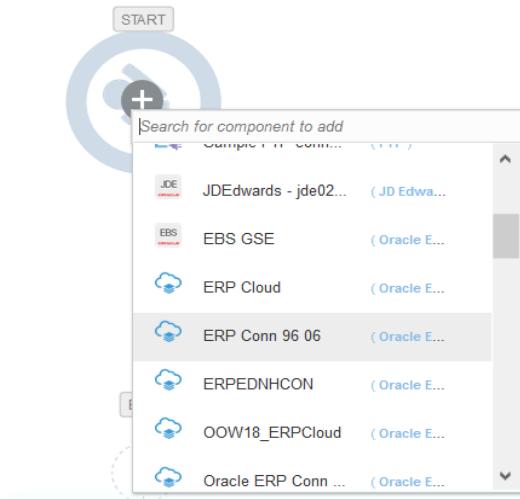
Invoice Bulk Import Callback Review <student_id> <class_id>

The screenshot shows a dialog box titled "Create New Integration". It includes the following fields:

- Integration Name:** Invoice Bulk Import Callback Review 96 06
- Identifier:** INVOIC_BULK_IMPORT_CALLBA REVIEW
- Version:** 01.00.0000
- Description:** This integration will be invoked as callback from ERP Cloud. This demonstrates the capability of ERP Cloud Adapter's Callback functionality
- Package:** erp.inbound.lab

At the bottom right are "Create" and "Cancel" buttons.

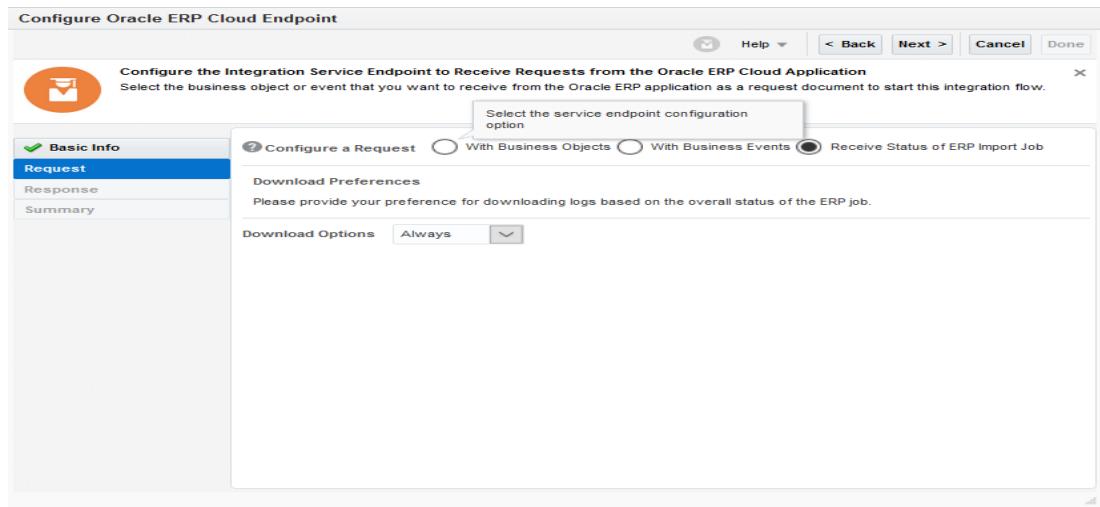
- Click on the + sign on the first element (trigger) and select the **ERP Conn 96 06** connection. This flow will be triggered by the ERP Cloud through a Callback



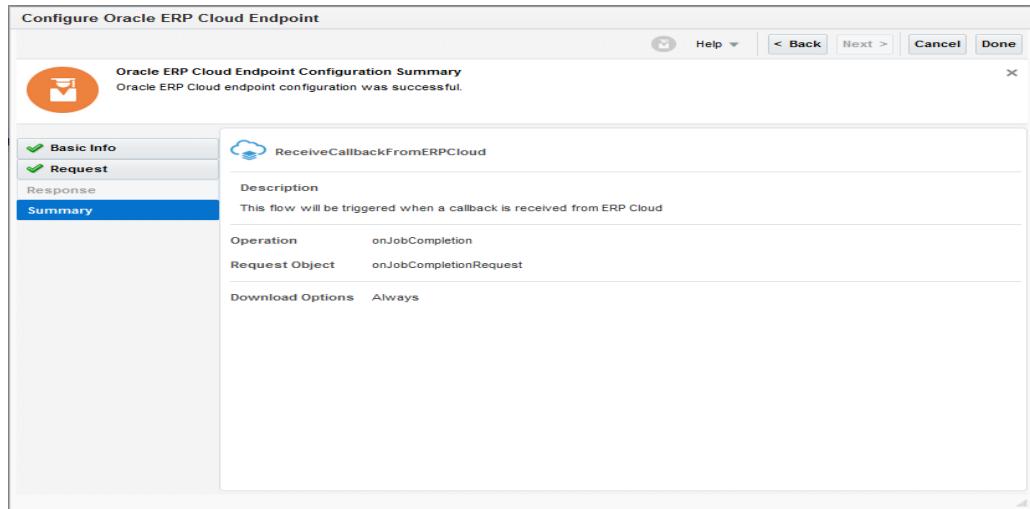
4. Enter name and description for the endpoint as below

A screenshot of the 'Configure Oracle ERP Cloud Endpoint' configuration wizard. The title bar says 'Configure Oracle ERP Cloud Endpoint'. The top right has buttons for 'Help', '< Back', 'Next >', 'Cancel', and 'Done'. A welcome message reads: 'Welcome to the Oracle ERP Cloud Endpoint Configuration Wizard. This wizard helps you configure an endpoint using the Oracle ERP Cloud connection. You will be asked to specify configuration parameters and define an operation for the service.' On the left is a sidebar with tabs: 'Basic Info' (which is selected and highlighted in blue), 'Request', 'Response', and 'Summary'. The main panel shows 'Basic Info' details: 'What do you want to call your endpoint?' is set to 'ReceiveCallbackFromERPCloud'; 'What does this endpoint do?' is described as 'This flow will be triggered when a callback is received from ERPCloud'. There is also a note at the bottom: 'This flow will be triggered when a callback is received from ERPCloud'.

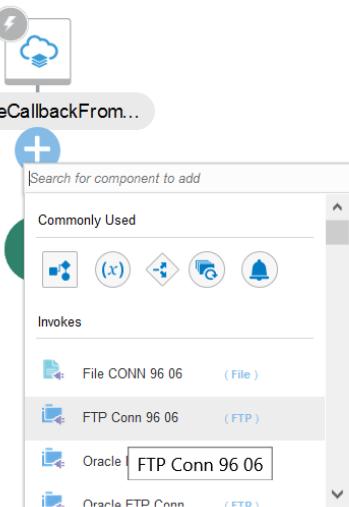
5. Select the radio button – *Receive Status of ERP Import Job*. Select the *Always* option for downloading logs from the callback for the job status



6. Review your choices on the summary page and click on **Done**



7. Hover over the wire and click on the + sign
 8. Select **FTP Conn 96 06** connection



9. Provide details as following...

What do you want to call the endpoint? – **WriteToFTP**

Provide description – “Receives callback zip file and writes to FTP location”

Oracle Adapter Endpoint Configuration Wizard

Welcome to the Oracle Adapter Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the Oracle FTP adapter.

Basic Info

- Operations
- Schema
- File Contents - Definition
- Summary

* What do you want to call the endpoint?
WriteToFTP

What does this endpoint do?
Receives callback zip file and writes to FTP location

10. Click Next.

Select Operation – **Write File**

Select Transfer Mode – **ASCII**

Output Directory - **/upload/public_ftp/<<YOURNAMES>>/out**

File Name Pattern - **InvCallback%SEQ%.zip**

Leave other options as defaults.

Oracle Adapter Endpoint Configuration Wizard

Configure the Operation Parameters for the Target FTP Endpoint
Select the operation to perform and define the parameters required for target FTP endpoint.

Operations

- Basic Info
- Operations**
- Schema
- File Contents - Definition
- Summary

* Select Operation Write File

* Select a Transfer Mode ASCII Binary

* Output Directory /upload/erp/inbound/96/out

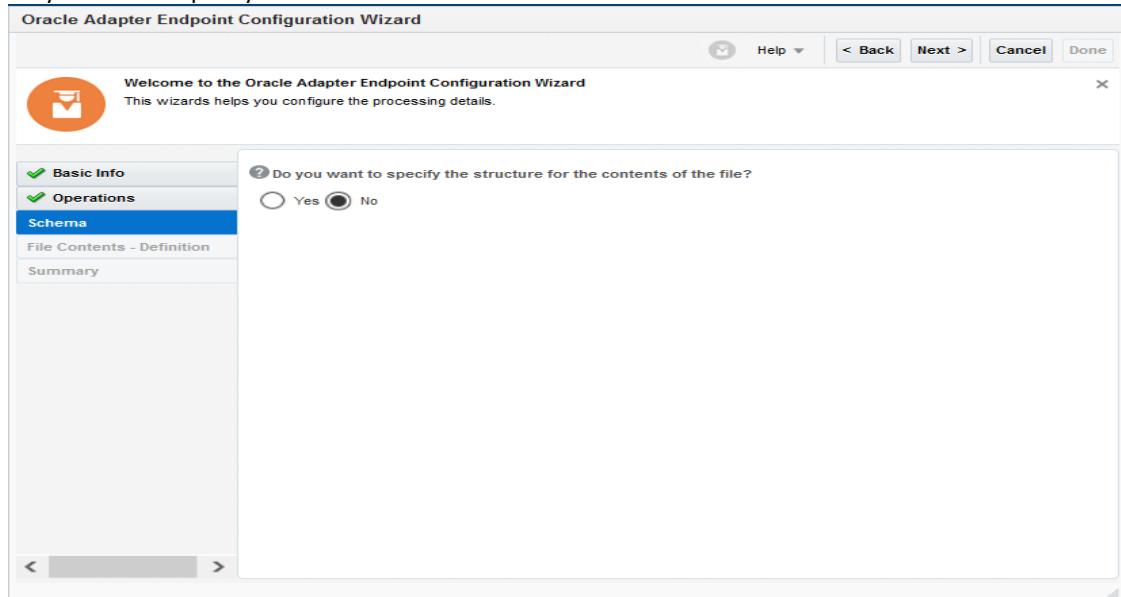
? * File Name Pattern InvCallback%SEQ%.zip

Append to Existing File

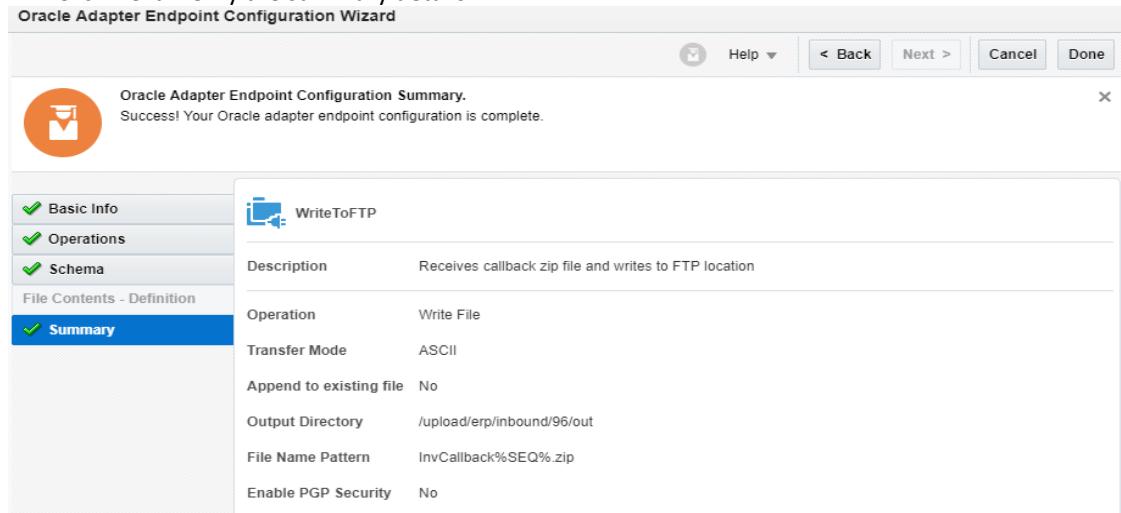
? * Enable PGP Security Yes No

11. Click Next.

Do you want to specify the structure for the contents of the file? – No



12. Click Next. Verify the summary details.



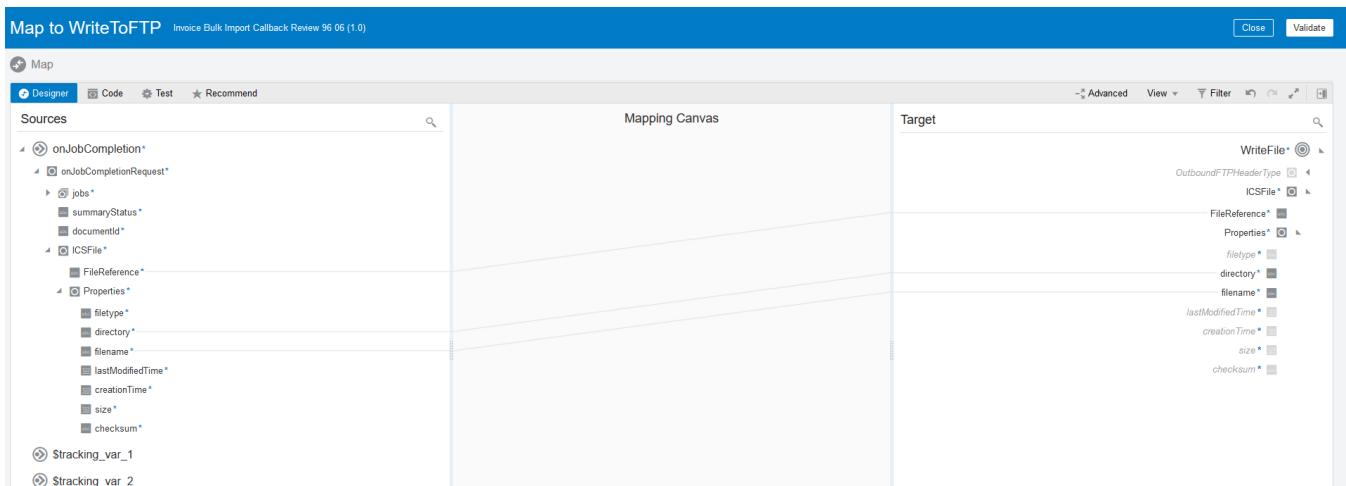
13. Click on Done.

14. Click on Map WriteToFTP and Map the fields

OnJobcompletion ->OnJobCompletionRequest->ICS File → File Reference -----→ WriteFile → ICS File → File Reference

OnJobcompletion ->OnJobCompletionRequest->ICS File → Properties → directory -----→ WriteFile → ICS File → Properties → directory

OnJobcompletion ->OnJobCompletionRequest->ICS File → Properties → filename -----→ WriteFile → ICS File → Properties → filename



15. Hover over the wire and click on the + sign after **WroteToFTP** activity.

16. Select **FTP Conn 96 06** connection.

17. Enter details

What do you want to call the endpoint? – **DownloadToOIC**

Description – **This operation downloads the file into OIC.**

18. Click Next. Provide details

Select Operation? – **Download file**

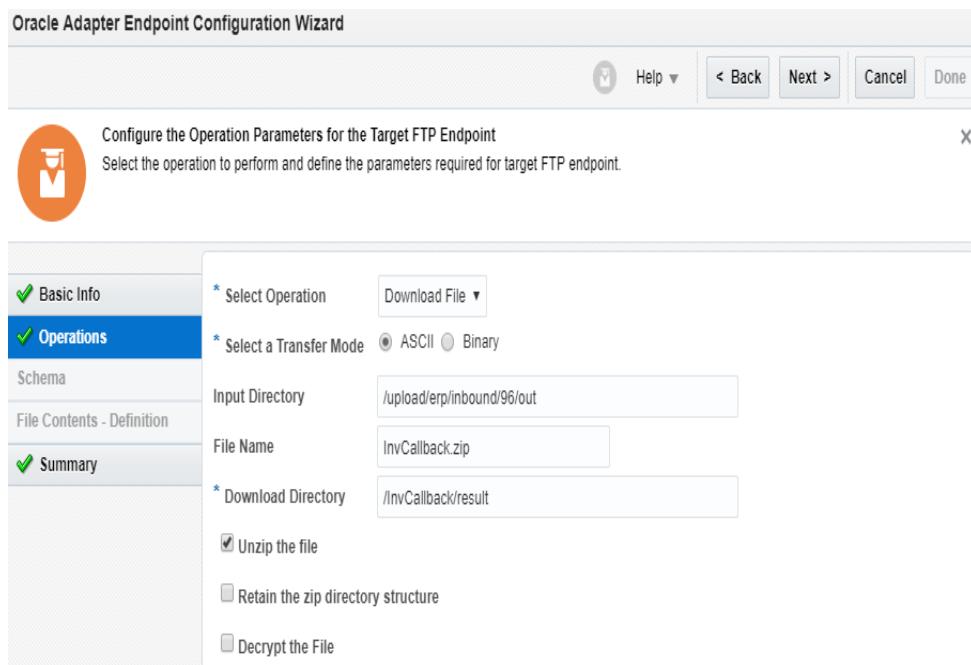
Select a Transfer Mode – **ASCII**

Input Directory - **/upload/public_ftp/<>YOURNAMES>/out** (This directory is a FTP location to read the file)

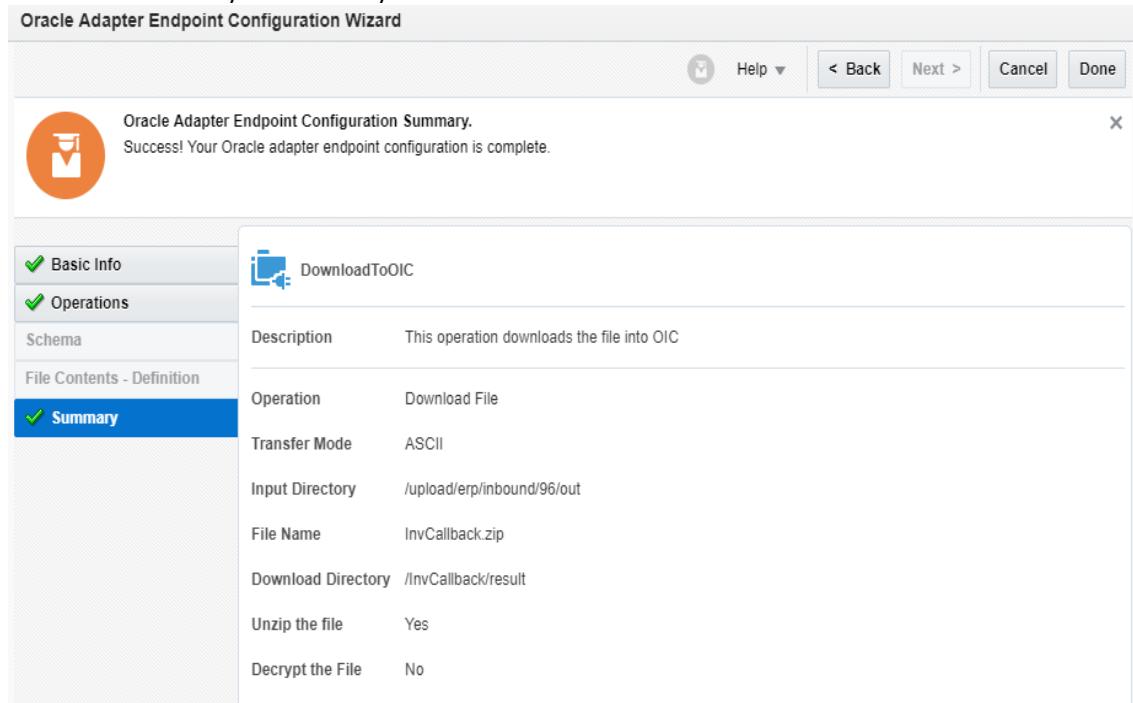
File Name - **InvCallback.zip**

Download Directory - **/InvCallback/result** (This directory is OIC Staging location and it is a unique for each instance)

Unzip the File - **Yes**



19. Click Next. Verify the summary.



20. Click on Done.

21. Select the mapper pencil icon.

Map \$WriteToFTP/WriteFileResponse/FTPWriteResponse/filename → DownloadRequest/filename and

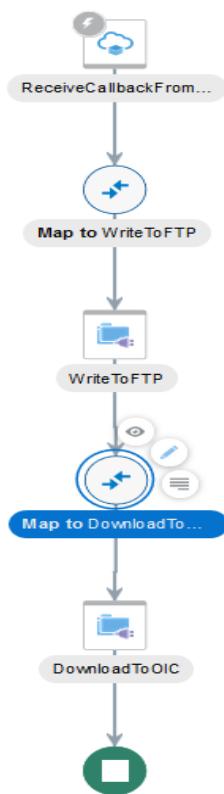
\$WriteToFTP/WriteFileResponse/FTPWriteResponse/directory → DownloadRequest/directory

Select Download Directory, and click on “Create Target Node” provide download directory.

Here in this case - Invcallback/result

The screenshot shows the Oracle Integration Map to DownloadToOIC interface. The Sources pane lists several items: 'onJobCompletion*', '\$WriteToFTP', 'FTPWriteResponse*', '\$tracking_var_1', '\$tracking_var_2', and '\$tracking_var_3'. The Mapping Canvas shows a mapping from 'FTPWriteResponse*' to a target element labeled 'A'. The Target pane is currently empty. A text bar at the bottom of the interface displays the path '/callback/result'.

22. Click on Validate. Click on Close.

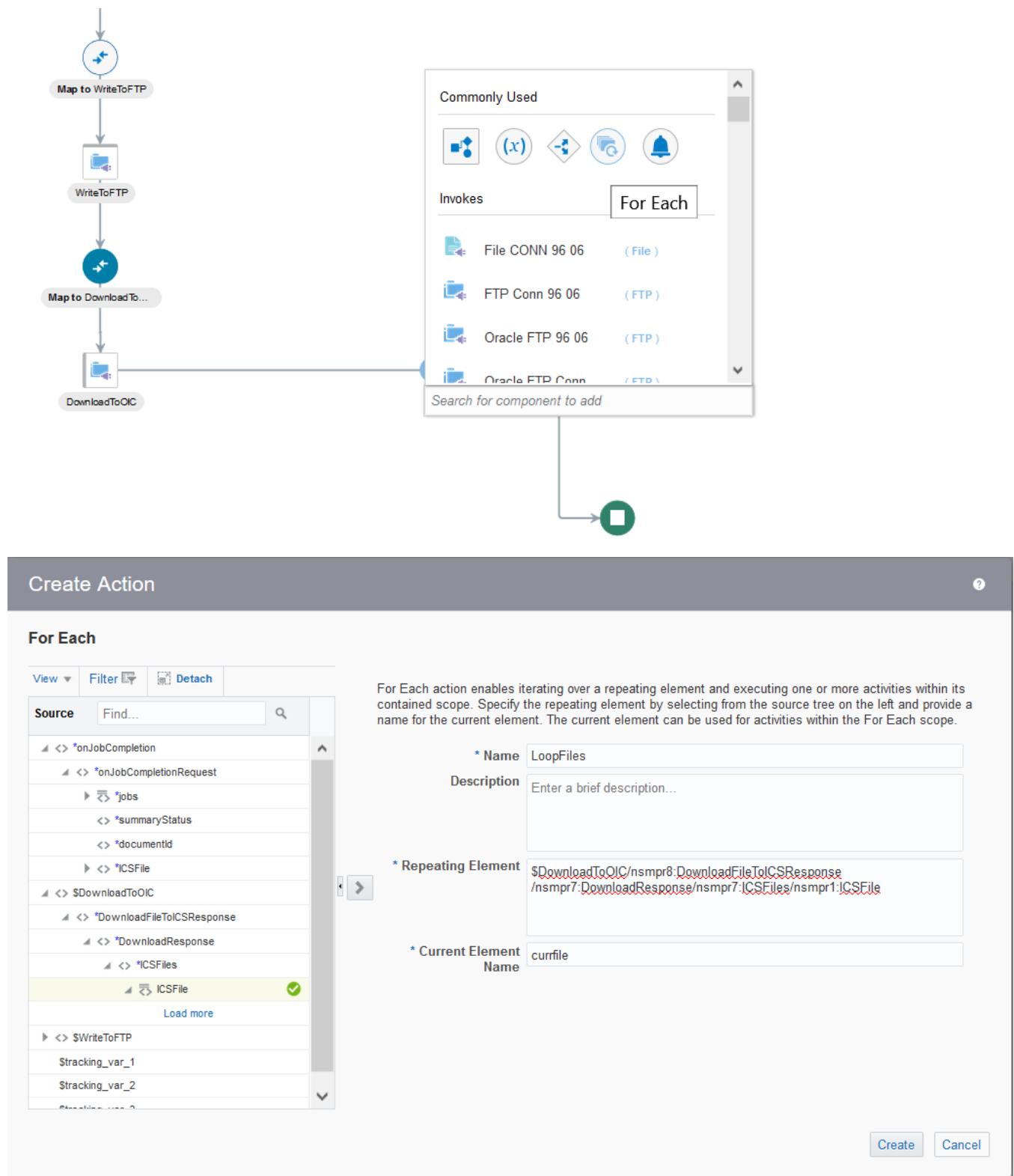


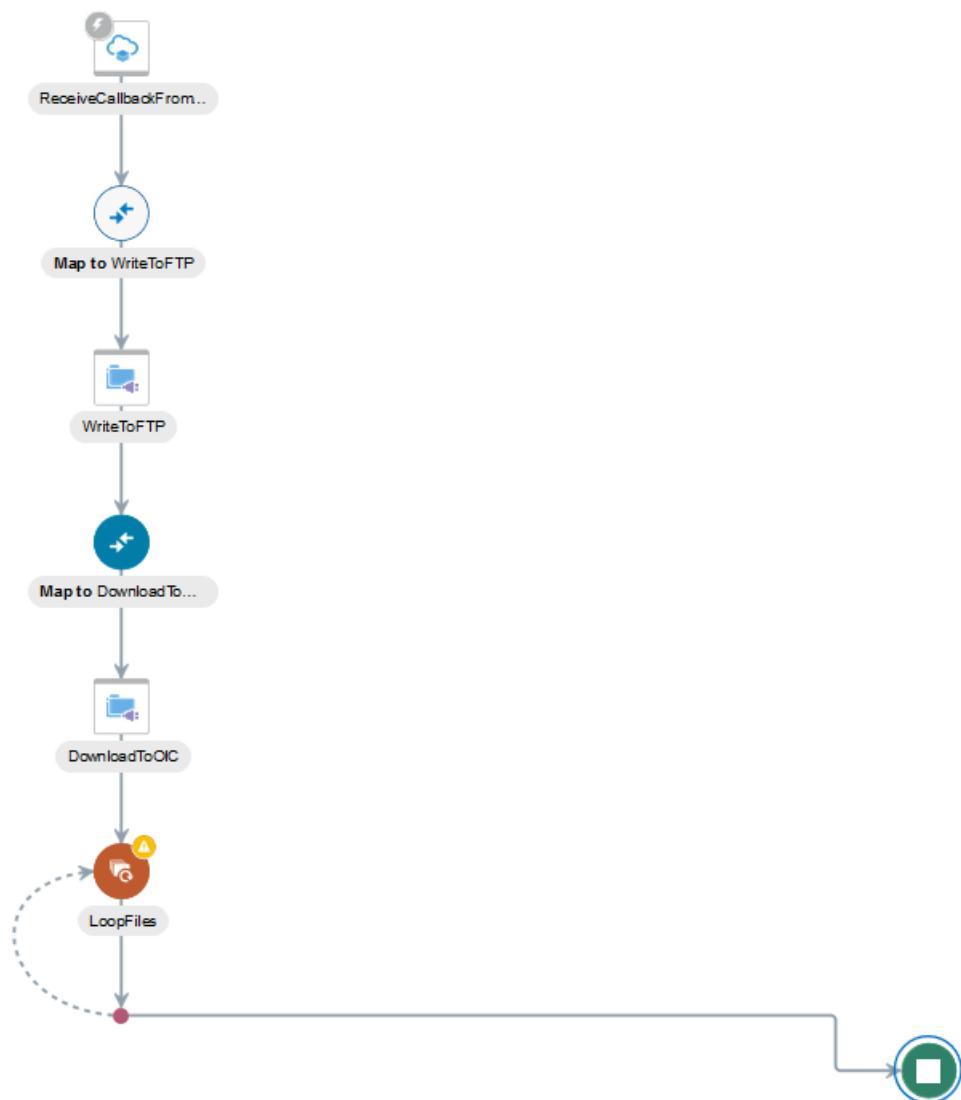
23. Hover over the wire and click on the + sign after **DownloadToOIC** activity
Enter details...

Name – **LoopFiles**

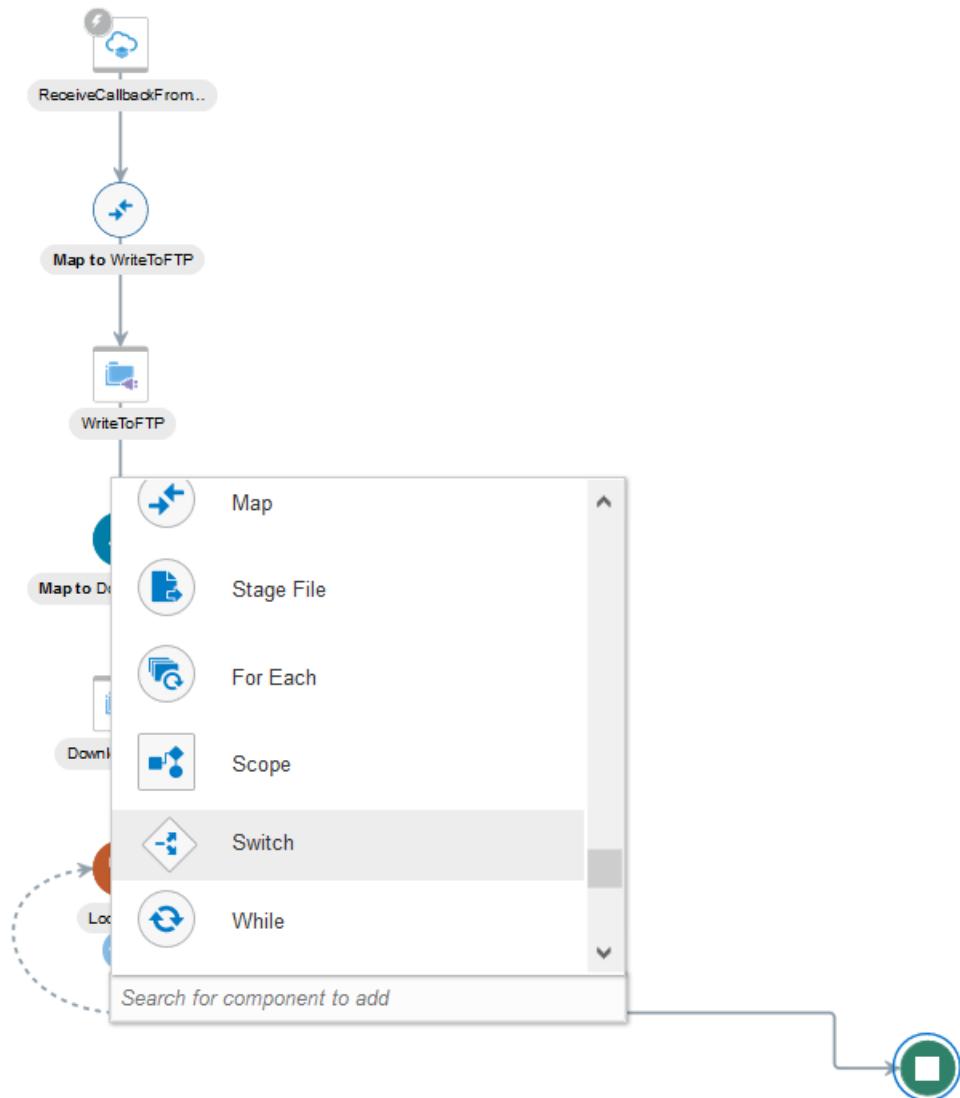
Drag and drop to Repeat Element - \$DownloadToOIC -> DownloadFileFileToICSResponse->DownloadResponse->ICSFiles->ICSFile

Click on **Create**.





24. Hover over the wire and click on the + sign after **LoopFiles** activity, and select **Switch** activity



Click on **undefined** branch and click on **Edit** pencil icon.

Name - **CheckRejectionFile**

Drag and drop **contains()** function from **Components->Functions->String->contains()** in Expression field

Replace **String1** by drag and drop \$currfile->ICSFile->Properties->filename

Replace **String2** by “**REJECTIONS**”.

Click on Validate and Click on Close.

CheckRejectionFile

Expression in "Invoice Bulk Import Callback Review 96 06 (1.0)"

Inputs

View ▾ Filter ▾ Detach

Source Find...

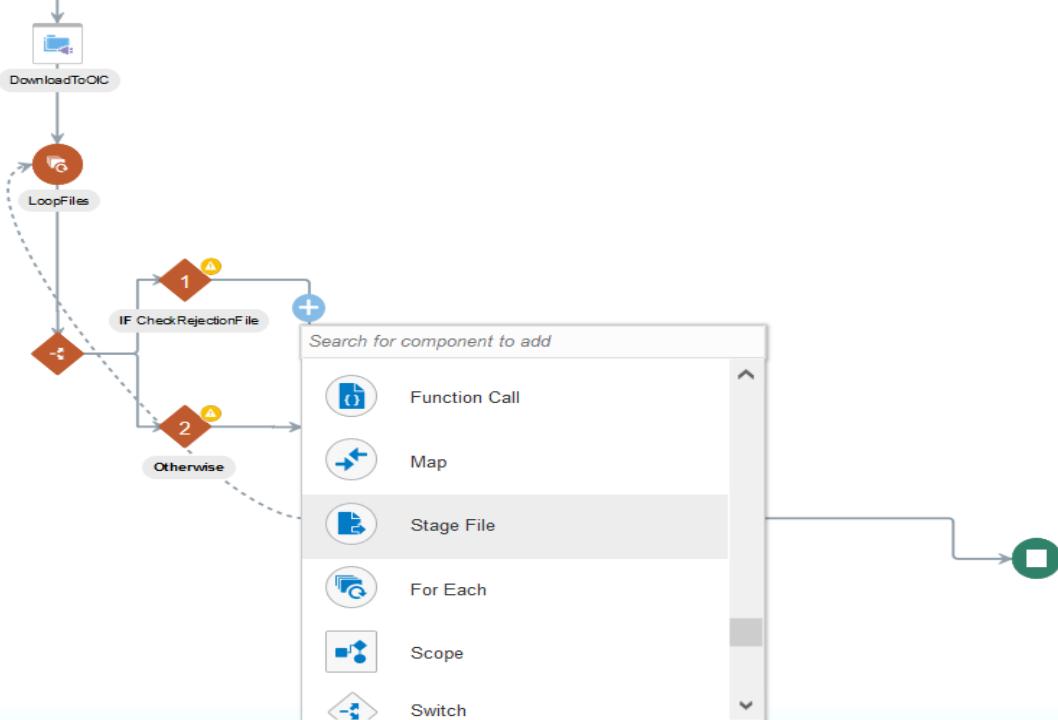
- ▶ <> *onJobCompletion
- ▶ <> \$DownloadToOIC
- ▶ <> \$WriteToFTP
- ◀ <> \$currfile
 - △ <> *ICSFile
 - <> *FileReference
 - △ <> *Properties
 - <> *filetype
 - <> *directory
 - <> *filename
 - <> *lastModifiedTime
 - <> *creationTime
 - <> *size
 - <> *checksum

Expression Name
CheckRejectionFile

Expression
contains(\$currfile/nsmpr7:ICSFile/nsmpr7:Properties/nsmpr7:filename,"REJECTIONS")

Expression Summary
contains(filename, "REJECTIONS")

25. Hover over the wire and click on the + sign in Branch1 (CheckRejectionFile) and select **StageFile** activity



Enter details as below...

What do you want to call your action? – **ReadRejections**

Click **Next**.

Choose Stage File Operation – **Read Entire File**

Click on **expression icon** adjacent to specify the **File Name**.

Drag and drop **\$currfile->ICSFile->Properties->filename**

Click on **Save**. Click on **Exit Expression Builder**.

Click on **expression icon** adjacent to specify the **Directory to read from**.

Drag and drop **\$currfile->ICSFile->Properties->directory**

Click on **Save**. Click on **Exit Expression Builder**.

Configure Stage File Action

Configure the Stage File Action Parameters for the Selected Operation
Define the parameters for Stage File Operation

Basic Info (selected)

Configure Operation

Schema Options
Format Definition
Summary

Choose Stage File Operation: Read Entire File

Specify the File Name: \$currfile/nsmpr7:ICSFile/nsmpr7:Properties/nsmpr7:filename

Specify the Directory to read from: \$currfile/nsmpr7:ICSFile/nsmpr7:Properties/nsmpr7:directory

Remove Trailer: None

Click Next.

Do you want to create a new schema or select an existing one?

Select **Create a new schema from a CSV File**

Configure Stage File Action

Configure the Stage File Action with Schema Options
Define the schema options for Stage File Operation

Basic Info
Configure Operation
Schema Options (selected)

Format Definition
Summary

Do you want to specify the structure for the contents of the file?
 Yes No

Do you want to create a new schema or select an existing one?
 Create a new schema from a CSV file
 Select an existing schema from the file system

Click Next.

Select “FailedRecords_AP_INTERFACE_REJECTIONS.csv” file

Enter the Record Name – **rej**

Enter the Record Set Name -**rejrecs**

Configure Stage File Action

Define the Schema Format
Define the parameters for generating an XSD for native format or non-XML languages. The XSD is used at runtime to translate a native format message into an XML message and vice versa.

<input checked="" type="checkbox"/> Basic Info	Create a New Schema from a CSV file																													
<input checked="" type="checkbox"/> Configure Operation	Select a New Delimited Data File <input type="button" value="Browse..."/> No file selected.																													
<input checked="" type="checkbox"/> Schema Options	Selected File Name FailedRecords_AP_INTERFACE_REJECTIONS.csv																													
<input checked="" type="checkbox"/> Format Definition	* Enter the Record Name rej * Enter the Recordset Name rejrecs Select the Field Delimiter Comma (,) Character Set UTF8 Optionally Enclosed By "																													
Summary	<input type="checkbox"/> Detach <input checked="" type="checkbox"/> Use First Row as Column Headers <table border="1"> <thead> <tr> <th>VERSION_ID</th> <th>LOAD_REQUEST_ID</th> <th>INVOICE_ID</th> <th>LINE_NUMBER</th> <th>REJECTION_MESSAGE</th> </tr> </thead> <tbody> <tr> <td>y</td> <td>String</td> <td>String</td> <td>String</td> <td>String</td> </tr> <tr> <td></td> <td>Mandatory</td> <td>Mandatory</td> <td>Mandatory</td> <td>Mandatory</td> </tr> <tr> <td></td> <td>1384430</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>1384430</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					VERSION_ID	LOAD_REQUEST_ID	INVOICE_ID	LINE_NUMBER	REJECTION_MESSAGE	y	String	String	String	String		Mandatory	Mandatory	Mandatory	Mandatory		1384430					1384430			
VERSION_ID	LOAD_REQUEST_ID	INVOICE_ID	LINE_NUMBER	REJECTION_MESSAGE																										
y	String	String	String	String																										
	Mandatory	Mandatory	Mandatory	Mandatory																										
	1384430																													
	1384430																													

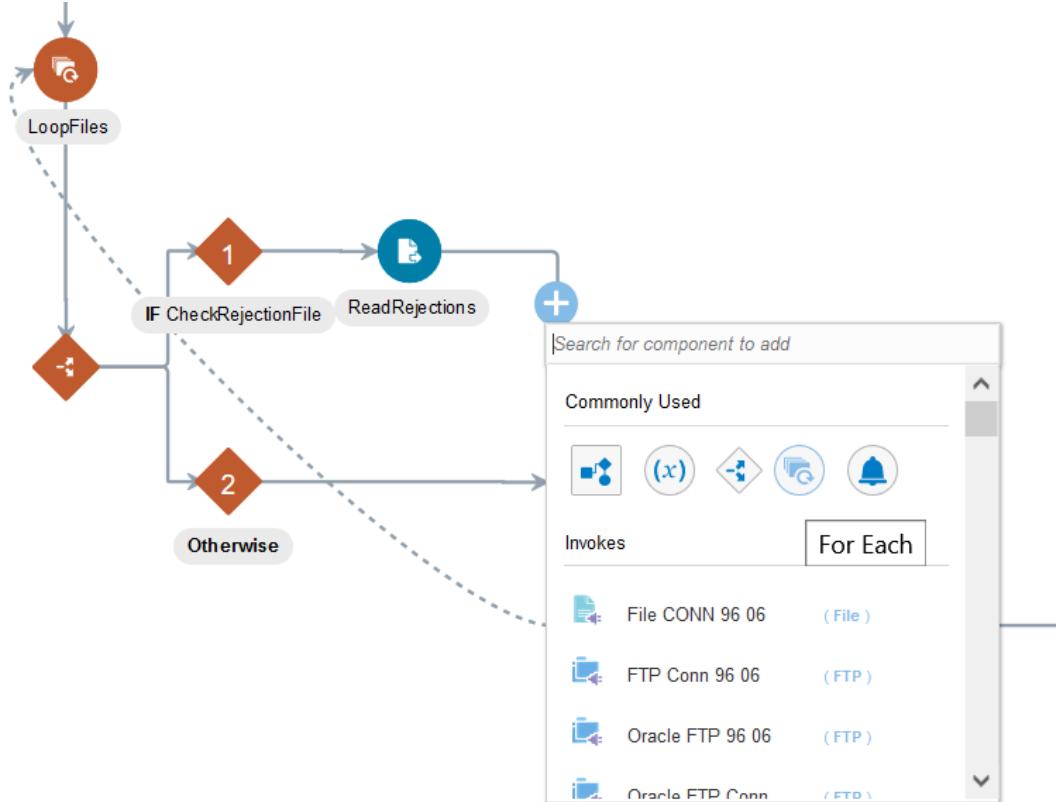
Click Next. Review Summary. Click Done.

Configure Stage File Action

Stage File Action Configuration Summary.
Stage File Action configuration was successful.

<input checked="" type="checkbox"/> Basic Info	ReadRejections	
<input checked="" type="checkbox"/> Configure Operation	Description	
<input checked="" type="checkbox"/> Schema Options	Selected Stage File Operation Read	
<input checked="" type="checkbox"/> Format Definition	File Name \$currfile/nsmpr7:ICSFile/nsmpr7:Properties/nsmpr7:filename	
Summary	Input Directory \$currfile/nsmpr7:ICSFile/nsmpr7:Properties/nsmpr7:directory	
	Trailing Rows to Remove 0	
	Format Definition Schema	
	Element rejrecs	

26. Hover over the wire and click on the + sign after **ReadRejections** Stage Activity and select **ForEach** activity



Enter details...

Name – **LoopThruRejRecords**

Drag and Drop in to Repeating Element - \$ReadRejections->ReadResponse->rejrecs->rej

Current Element – **currRejRec**

Click on **Create**.

Create Action

For Each

View ▾ Filter ▾ Detach

Source Find...

For Each action enables iterating over a repeating element and executing one or more activities within its contained scope. Specify the repeating element by selecting from the source tree on the left and provide a name for the current element. The current element can be used for activities within the For Each scope.

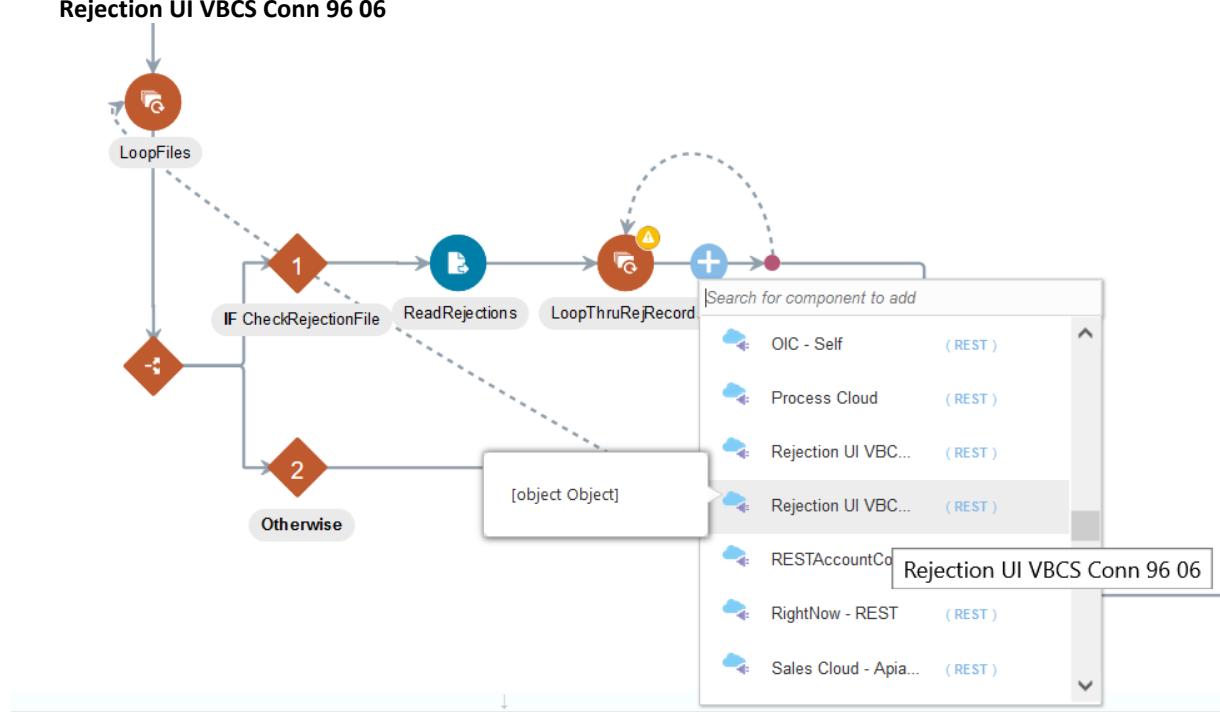
* Name: LoopThruRejRecords
Description: Enter a brief description...
* Repeating Element: \$ReadRejections/nsmpr10:ReadResponse/nsmpr9:rejrecs/nsmpr9:rej
* Current Element Name: currRejRec

Source tree:

- onJobCompletion
- \$DownloadToOIC
- \$ReadRejections
- *ReadResponse
- *rejrecs
- *rej
- \$WriteToFTP
- *WriteFileResponse
- *FTPWriteResponse
- \$currfile
- *ICSFile
- *FileReference
- *Properties
- Tracking_var_1
- Tracking_var_2
- ...

Create Cancel

27. Inside the **LoopThruRejRecords ForEach** loop, hover over the wire and click on the + sign and select connection **Rejection UI VBCS Conn 96 06**



Enter details...

What do you want to call your endpoint? – **FeedRejectionDataToVBCS**

What is the endpoint's relative resource URI? - **/FailedRecordsAPINTERFAC**

What action do you want to perform on the endpoint? – **POST**

Check – **Configure a request payload for this endpoint.**

Click **Next**.

The screenshot shows the 'Configure REST Endpoint' wizard. The left sidebar has tabs: Basic Info (selected), Request Parameters, Request, Request Headers, Response, Response Headers, and Summary. The main area has fields for:

- * What do you want to call your endpoint? (FeedRejectionDataToVBCS)
- What does this endpoint do? (Describe the endpoint's purpose and detail)
- * What is the endpoint's relative resource URI? (/FailedRecordsAPINTERFAC)
- * What action do you want to perform on the endpoint? (POST)

 Below these are sections for adding parameters, configuring request/response headers, and selecting options like 'Configure a request payload for this endpoint' (which is checked).

28. Select request payload format – **JSON Sample**. Click <<<**inline**>>> and provide the json sample...

```
{
  "creationDate": "2018-08-08T18:25:48+00:00",
  "lastUpdateDate": "2018-08-08T18:25:48+00:00",
  "createdBy": "ddb0d124844e42f3a2004dd825d71cef",
  "lastUpdatedBy": "ddb0d124844e42f3a2004dd825d71cef",
  "pARENTTABLE": "AP_INVOICES_INTERFACE",
  "pARENTID": "111111",
  "rEJECTLOOKUPCODE": "DUPLICATE INVOICE NUMBER",
  "IASTUPDATEDBY2": "FIN_IMPL",
  "IASTUPDATEDATE2": "2018-08-08",
  "IASTUPDATELOGIN": "72E8B261232CE930E0538FE4E90A7EE3",
  "cREATEDBY2": "FIN_IMPL",
  "cREATIONDATE2": "2018-08-08",
  "IOADREQUESTID": "1384430",
  "INVOICEID": "null",
  "IINENUMBER": "null",
  "rEJECTIONMESSAGE": "null"
}
```

The screenshot shows the 'Configure REST Endpoint' dialog box. The 'Request' tab is selected. Under 'Select the request payload format', 'JSON Sample' is chosen. A sample location is set to 'request-wrapper'. The 'Media Type' is specified as 'application/json'. The 'Element' dropdown shows 'request-wrapper'. The 'Select the type of payload with which you want the endpoint to send' section has 'JSON' selected.

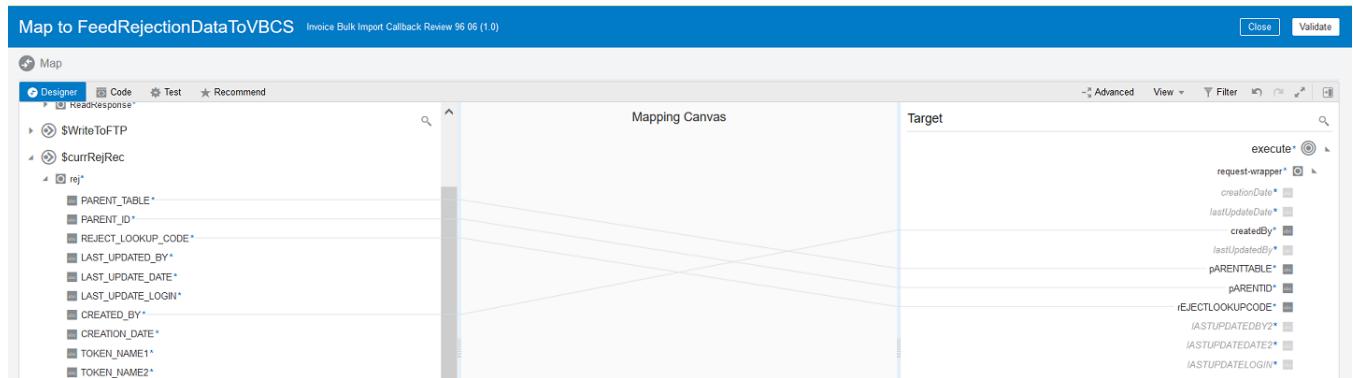
Click Next and Review Summary.

The screenshot shows the 'Configure REST Endpoint' dialog box. The 'Summary' tab is selected. It displays a 'Rest endpoint summary' for 'FeedRejectionDataToVBCS'. The 'Description' field is empty. An 'Endpoint Summary' section is present.

Click Done.

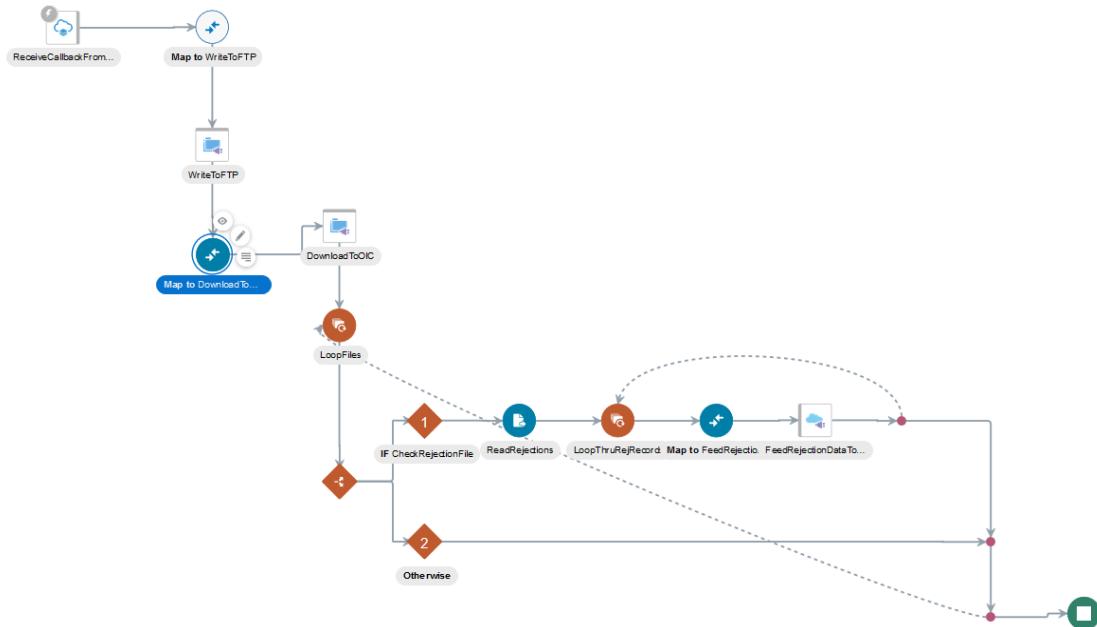
29. Click on the mapper icon to map fields.

\$currRejRec -> PARENT_TABLE -----→ \$request-wrapper->pARENTTABLE
 \$currRejRec -> REJECT_LOOKUP_CODE -----→ \$request-wrapper->rEJECTLOOKUPCODE
 \$currRejRec -> PARENT_ID -----→ \$request-wrapper->pARENTID
 \$currRejRec -> CREATED_BY -----→ \$request-wrapper->cREATEDBY



Click **Validate**. Click **Close**.

30. Completed flow looks like below.



Configure Business Tracking Identifiers for Callback flow

1. Click on the red icon on the top right, which shows the number of errors in your flow. You should have one error at this point – when you hover over the Integration Errors icon, you will see the error is about missing business tracking identifiers. Click on the hamburger icon at the top right, and select *Tracking*
2. Drag the *schedule->documentId* to the first Tracking Field cell in the table on the right. Here you are configuring Oracle Integration (OIC) to identify instances of runs of this flow in the monitoring consoles with the document that's come back as a part the received Callback

The screenshot shows the 'Business Identifiers For Tracking' configuration screen. On the left, there's a tree view of source objects under 'Source'. A node labeled 'documentId' is selected and highlighted in blue. On the right, there's a table for defining tracking fields:

Primary	Tracking Field	Tracking Name	Tracking Variable	Help Text
<input checked="" type="checkbox"/>	documentId	document Id	tracking_var_1	How to track it?
	Drag a trigger field here	tracking_var_2	tracking_var_2	How to track it?
	Drag a trigger field here	tracking_var_3	tracking_var_3	How to track it?

At the bottom right are 'Save' and 'Cancel' buttons.

- Click Save. This will return you back to the completed flow with no error messages.

Congratulations, you have now completed building your Callback flows. Next, we *activate* the flow.

Activate Callback Integration

First, let's activate the Callback flow, then update the **Invoice Bulk Import to ERP <student_id> <class_id>** flow to complete the callback configuration and then activate the **Invoice Bulk Import to ERP <student_id> <class_id>** too.

- On the Integrations page, click on the **Invoice Bulk Import Callback Review <student_id> <class_id> – Callback** flow using the slider button

The screenshot shows the 'Integrations' page with a search bar and a table of integration flows. One row is selected, showing details for the 'Invoice Bulk Import Callback Review 96 06 (1.0)' flow. The flow is described as 'APP DRIVEN ORCHESTRATION' and notes that it 'will be invoked as callback from ERP Cloud. This demonstrates the capability of ERP Cloud Adapter's Callback functionality'. At the bottom right, there's a toggle switch with the text 'Configured. Switch to activate.'

- Check the *Oracle Recommends* check box to contribute your mappings to the Recommendations engine that then suggests mappings to you and other users for similar integrations. Also, check *Enable tracing* and *Enable payload* for debugging and troubleshooting (you would typically have the tracking and payload options disabled on production instances, but we enable them here for this lab).

The screenshot shows the 'Activate Integration' dialog box. At the top, it says 'Invoice Bulk Import Callback Review 96 06 (1.0)'. Below that, there's a section titled 'Oracle Recommends' with a checked checkbox for contributing integration mappings. A note explains that Oracle Integration Cloud leverages collective intelligence to recommend field mappings, which are built based on contributions from others. There's a 'Learn More' link. The next section, 'Oracle Asserter', discusses recording payloads and has an unchecked checkbox for enabling assertion recording. The final section, 'Tracing', discusses tracing activity in the Activity Stream and includes two checked checkboxes for enabling tracing and including payload. A note warns that including payload can pose security risks and slow down the system. There's also a 'Learn More' link. At the bottom right are 'Activate' and 'Cancel' buttons.

- The activation should complete in a few seconds typically and show a green ribbon at the top with the URL that you can use to invoke this integration from a SOAP client. However, we will not be invoking this flow explicitly. We will instead configure it as the Callback flow in the ERP Cloud (via the ERP endpoint in our **Invoice Bulk Import to ERP 96 06** flow), which ERP Cloud will then invoke on completion of the Import job.

The screenshot shows the 'Integrations' page in Oracle Integration Cloud. It lists the 'Invoice Bulk Import Callback Review 96 06 (1.0)' flow. The flow is categorized under 'APP DRIVEN ORCHESTRATION'. A note below the flow states: 'This integration will be invoked as callback from ERP Cloud. This demonstrates the capability of ERP Cloud Adapter's Callback functionality.' On the right side of the screen, there are several icons for managing the integration, including a gear for settings, a magnifying glass for search, and a list icon. There are also buttons for 'Import' and 'Create' at the top right.

- Click on the flow name (**Invoice Bulk Import Callback Review <student_id> <class_id>** – Callback). This will open the flow in View mode. We need to capture the flow identifier and version, which is required for us to configure the callback in the other flow. For this, click on the hamburger menu on the top right, and go to *Primary Info*.

Invoice Bulk Import Callback Review 96 06 (1.0) VIEW ONLY

App Driven Orchestration

Name: Invoice Bulk Import Callback Review 96 06

Identifier: INVOIC BULK IMP CB REV 96 06

Version: 01.00.0000

Package: erp.inbound.lab

Description: This integration will be invoked as callback from ERP Cloud. This demonstrates the capability of ERP Cloud Adapter's Callback functionality

5. Note the *Integration Identifier* and *Version*. You will need to use this in the next steps. Click *Close*.

Complete Callback Config in the Invoice Bulk Import to ERP Import Flow

1. From the Integrations listing, click on the hamburger icon for the **Invoice Bulk Import to ERP 96 06** flow and select *Edit*

Integrations

Jan 25, 2019 2:45:27 PM UTC

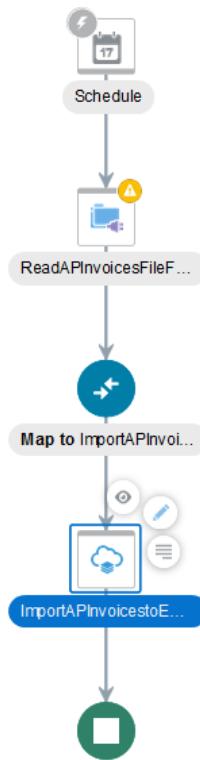
Integration Name contains **Invoice Bulk Import to ERP 96 06**

Invoice Bulk Import to ERP 96 06 (1.0)

SCHEDULED ORCHESTRATION
This integration demonstrates the use of OIC's ERP Cloud Adapter along with the FTP adapter fetching a AP Invoices file and importing it into ERP Cloud, and then receiving a call

View Edit Clone Create Version Export Download Artifacts Delete Submit Now Add Schedule Activate Map to Insight Oracle Asserter

2. Click on the pencil icon to edit the ERP Cloud endpoint in the flow.



3. This will load the *Summary* page. Click *Back* to get the *Responses* tab

Configure Oracle ERP Cloud Endpoint

Oracle ERP Cloud Endpoint Configuration Summary
Oracle ERP Cloud endpoint configuration was successful.

<input checked="" type="checkbox"/> Basic Info <input checked="" type="checkbox"/> Actions <input checked="" type="checkbox"/> Operations <input checked="" type="checkbox"/> Response <input checked="" type="checkbox"/> Summary	ImportAPInvoicestoERPCloud Description Using this adapter, send to UCM in ERP Cloud, invoke process to upload data and configure callback to receive from ERP Cloud Select Bulk Data Import Process Import Payables Invoices Job Property File Additional Import Options Notification Mode Email & Bell Notification Occurrence Send in any case Callback Enabled No Integration Flow Identifier Integration Flow Version Mandatory steps for BulkImport. Click below link. Prerequisites for Bulk Data Import
---	---

4. Check *Enable Callback*. Enter the *Integration Flow Identifier* (not the flow name) and *Version* you noted in the previous steps. Note for the version we only need the first two digits. Click *Next*.

Configure Oracle ERP Cloud Endpoint

Help < Back Next > Cancel Done

Configure Oracle ERP Cloud Endpoint

Basic Info Actions Operations Response Summary

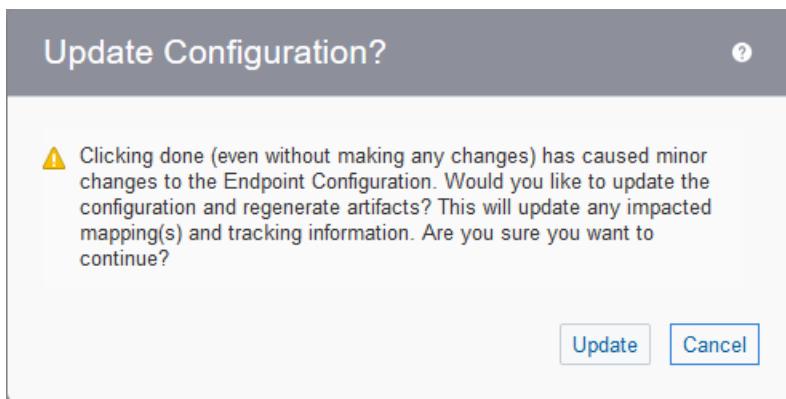
Notifications
Please provide notification preferences for communicating job completion status.

* Notification Mode: Email & Bell Notification
* Occurrence: Send in any case
Enable Callback:

Callback
Please provide the integration flow name and version for the callback

? * Integration Flow Identifier: INVOIC_BULK_IMP_CB_REV_96_06
? * Integration Flow Version: 01

5. Click **next** and click on **done**. Click **Update** on the **Update Configuration?** Pop-up window.



6. Select the slider to activate the *Invoice Bulk Import to ERP <student_id> <class_id>* flow.

Integrations

Jan 25, 2019 2:51:55 PM UTC

Integration Name contains: Invoice Bulk Import to ERP 96 06

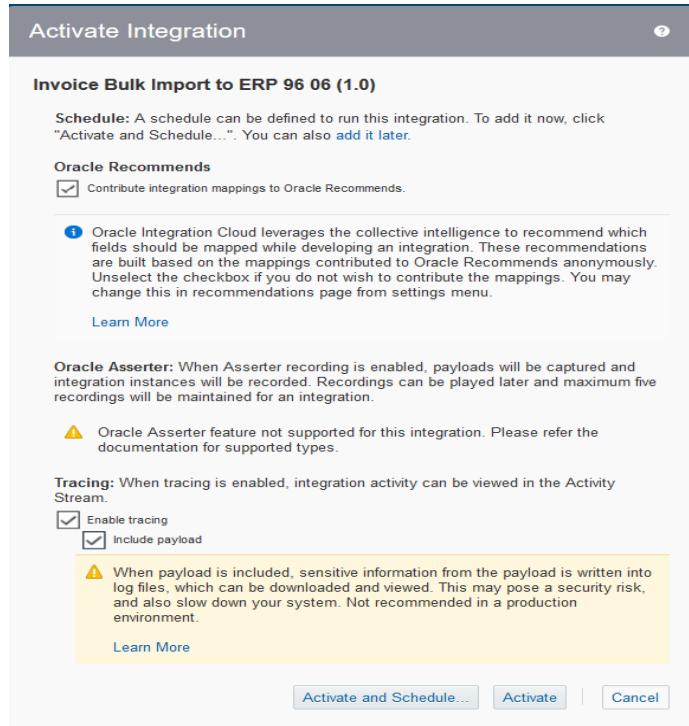
Invoice Bulk Import to ERP 96 06 (1.0)
SCHEDULED ORCHESTRATION
This integration demonstrates the use of OIC's ERP Cloud Adapter along with the FTP adapter fetching a AP Invoices file and importing it into ERP Cloud, and then receiving a call

Import Create

Configured. Switch to activate.

7. Just like with the previous activation step (for the Callback flow), check the *Oracle Recommends* check box to contribute your mappings to the Recommendations engine that then suggests mappings to you and other users for similar integrations. Also, check *Enable tracing* and *Enable payload* for debugging and troubleshooting (you would

typically have the tracking and payload options disabled on production instances, but we enable them here for this lab).



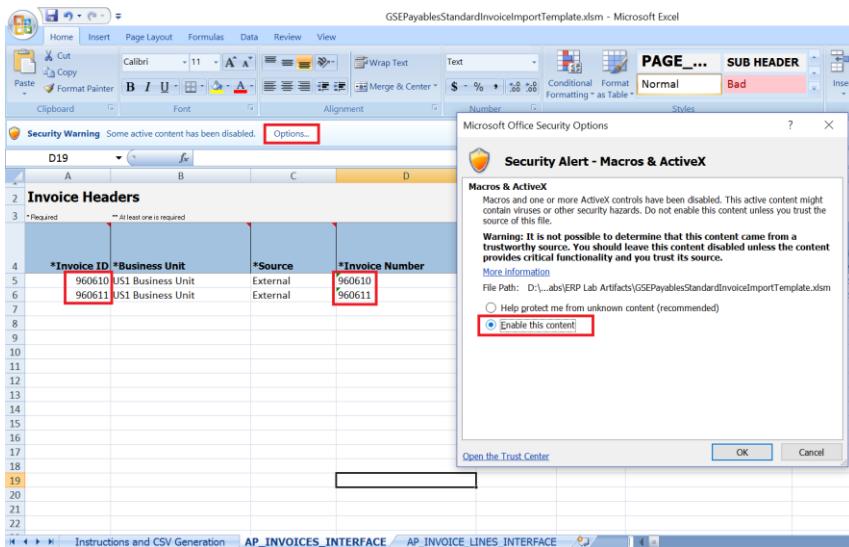
8. The activation should complete in a few seconds typically. Since this is a scheduled integration, you can run it on a schedule (you can set the schedule by clicking on the hamburger icon to the right of the integration listing) or by doing a *Submit Now* (also from the same hamburger icon). We will do this in the next step.

The screenshot shows the 'Integrations' list page in Oracle Integration Cloud. It displays the integration name 'Invoice Bulk Import to ERP 96 06 (1.0)', its status as 'SCHEDULED ORCHESTRATION', and a note indicating it's a scheduled orchestration. The page also includes filters, search, and sorting options.

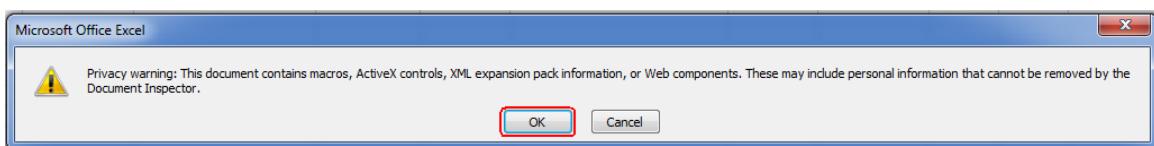
Run the Invoice Bulk Import to ERP Import Flow

Generate APIInvoices Data

1. Open “**GSEPayablesStandardInvoiceImportTemplate.xlsxm**” file from the **ERP Lab Artifacts.zip** file that you extracted locally.
2. **No Action:** To understand about APIInvoices, refer to first sheet “**Instructions and CSV generation**”. On the top of the sheet, you can see security warning. Click on it and enable the content.



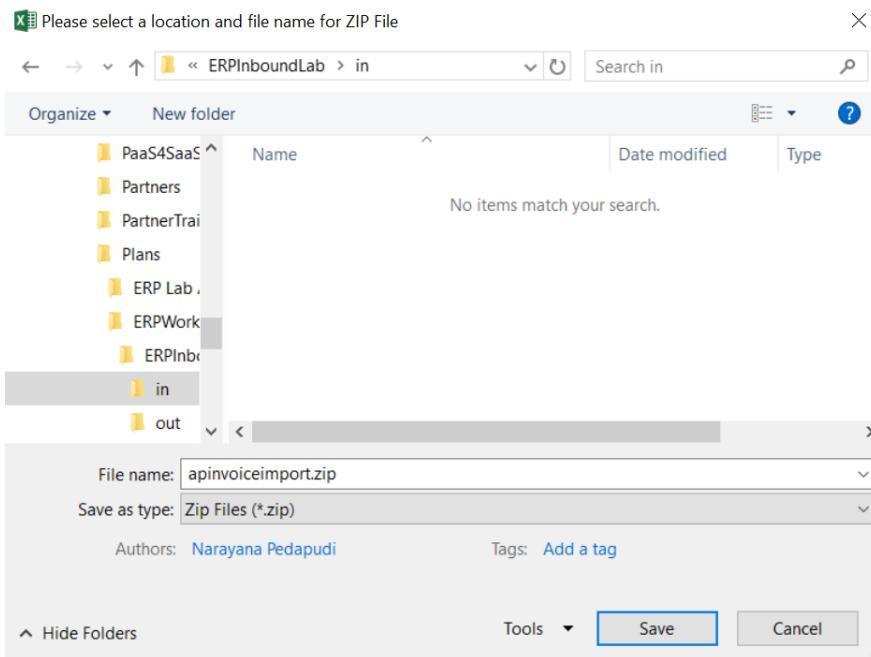
3. Go to “AP_INVOICES_INTERFACE” sheet, update the “*Invoice ID” and *Invoice Number” (Please provide any random unique numbers, like your <StudentId><ClassId> with 00 appended for Invoice ID and same do the same for Invoice Number. Make sure each row is unique) and Save the data. When saving the file you may get a warning as follows, click OK.



4. **No Action:** If you are updating “Business unit, **Supplier Name, **Supplier Number,*Supplier Site”, make sure you provide valid values as per your ERP instance data. For the sake of this lab, keep the same values.
5. Just edit the cells do not copy paste from the other sources .The Data type of each column is important and if changed, upload will fail.
6. Go to AP_INVOICE_LINE_INTERFACE sheet. This is line data associated with invoice id. Provide Invoice Id as per the previous sheet “AP_INVOICES_INTERFACE”. You can add more lines if u want. Save the data.

	A	B	C	D	E	F	G
2	Invoice Lines						
3	* Required						
4	*Invoice ID	Line Number	*Line Type	*Amount	Invoice Quantity	Unit Price	UOM
5	960610	1	ITEM	200.00			
6	960611	1	ITEM	300.00			
7	Same Invoice ID as AP_INVOICES_INTERFACE						
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
??							
Instructions and CSV Generation / AP_INVOICES_INTERFACE / AP_INVOICE_LINES_INTERFACE							

7. Go to "Instructions and CSV Generation". Click on the "Generate CSV file". It will open up a window save as "<StudentId><ClassId>apinvoiceimport.zip". Make sure you give unique name to the zip file. **Save *.zip folder, again save "ApInvoiceInterface.csv" and save "ApInvoiceLinesInterface.csv".**

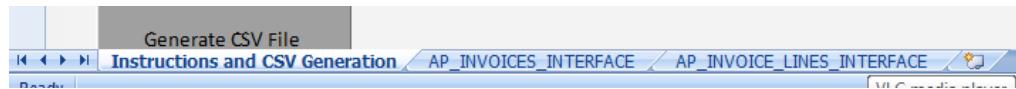


8. Copy "APTEST.PROPERTIES" file to your apinvoiceimport.zip file. You should have three files in apinvoiceimport.zip folder.

Note: **APTEST.properties** is an important file. If it is missed, import payable job will not run. If you are changing Business Unit /Source, the .properties file must be updated.

9. This file should be copied to a FTP server. We will do this step in the following section.

Note: Every time when you generate the CSV, make sure you have only three sheets. Please delete the extra sheets, which are created when data generation is done multiple times.



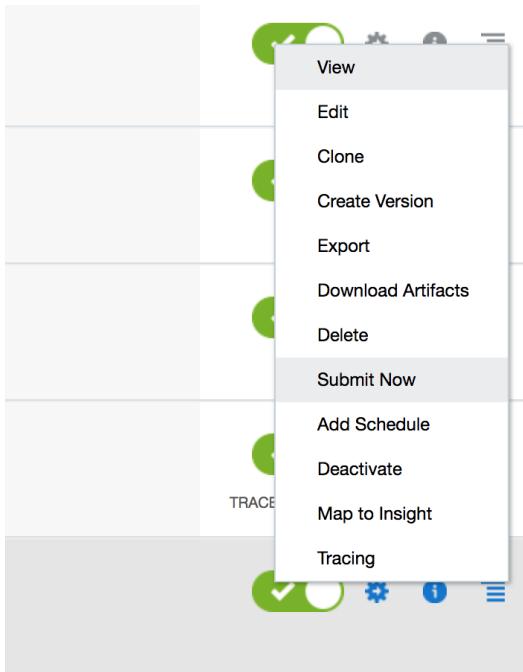
1. Log into your FTP Server and copy the file apinvoiceimport.zip to e.g. `/upload/public_ftp/<>YOURNAMES>/in` (respective directory that you have mentioned in the flow). This zip file contains the FBDI-compliant data file and a properties file required by the ERP upload process. Both these files could be created and encrypted within OIC.

The screenshot shows the WinSCP interface. On the left, a local folder structure is shown with a file named 'apinvoiceimport.zip'. On the right, an SFTP session is connected to 'us258614@sftp.us2.cloud.oracle.com'. The transfer path is set to '/upload/9606/in/'. The file has been successfully transferred, as indicated by its presence in the remote directory.

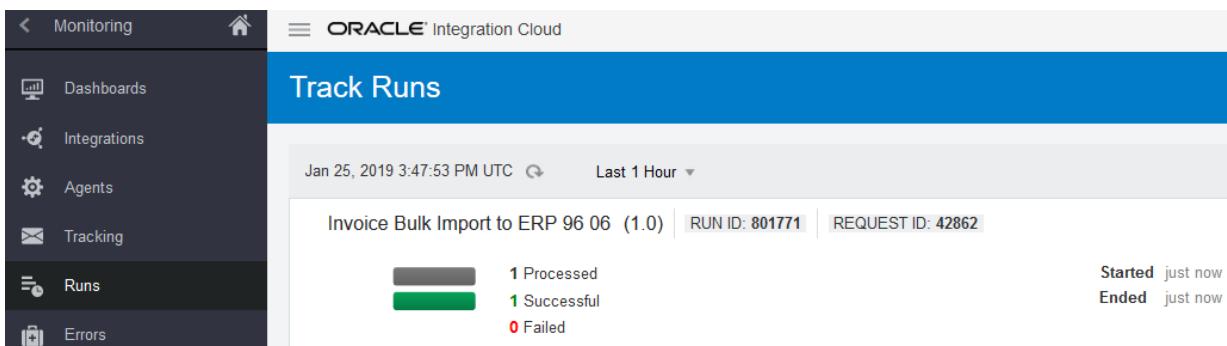
2. Click on the hamburger to the right of the *Invoice Bulk Import to ERP <student_id> <class_id>* flow and select **Submit Now** to run the flow. Make sure the **Invoice Error Handling Portal** VBCS app is available in VBCS application.

The screenshot shows the Oracle Visual Builder Cloud Service interface. Under the 'Visual Applications' section, there is one entry: 'Invoice Error Handling Portal' with a status of 'Development' and version '1.0'.

The screenshot shows the Oracle Integration Center interface under the 'Integrations' tab. It displays a single integration named 'Invoice Bulk Import to ERP 96 06 (1.0)' with a status of 'SCHEDULED ORCHESTRATION'. A note below it states: 'This integration demonstrates the use of OIC's ERP Cloud Adapter along with the FTP adapter fetching a AP Invoices file and importing it into ERP Cloud, and then receiving a call back from...'.



3. The flow should kick off and show you a green ribbon the top with a link to the running instance to track it. Click on the link to track the run.
4. This will take you to the Monitoring page where you should see your integration either in *Processing* or *Successful* state



5. Once it is marked as *Successful*, you should receive the submission confirmation notification email on the email you configured in your flow. After a few minutes, once the import process has completed on the ERP Cloud, the Callback flow will automatically be invoked from ERP Cloud and you should receive the status notification email.

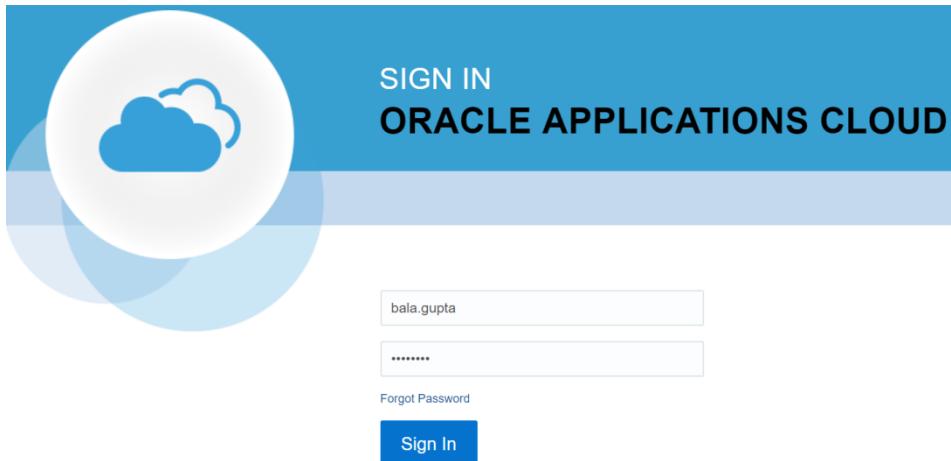
Congratulations, you have now completed this use case to Import Invoice Entries (FBDI) into ERP Cloud!

Test Invoice Bulk Import to ERP integration flow

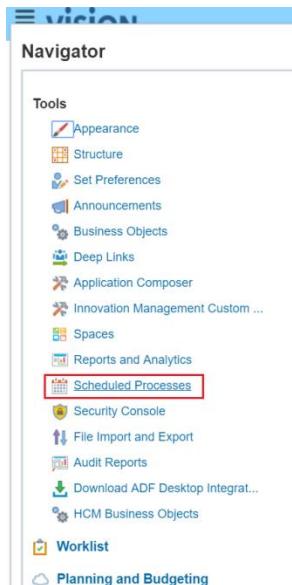
Now that the monitoring shows that the flow execution is successful, let us verify whether the process is launched in ERP.

1. Login to ERP Cloud Service using following details. The Scheduled processes are specific to user. Login with the same user which is used to create ERP connection to check scheduled process.

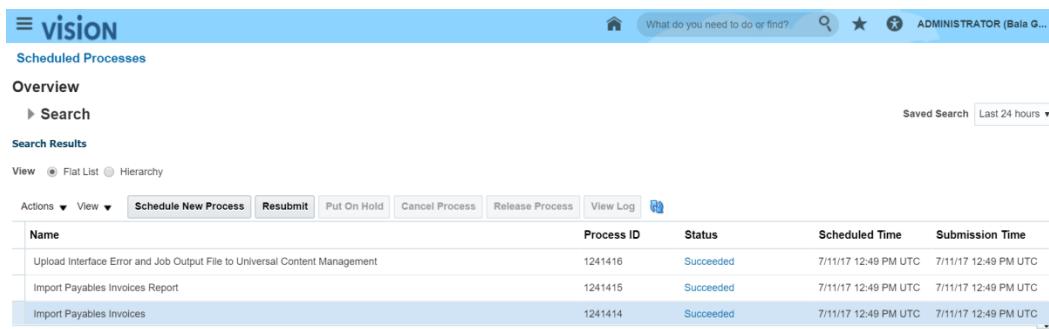
Field	Enter
URL	<a href="https://<host>/homePage/faces/AtkHomePageWelcome">https://<host>/homePage/faces/AtkHomePageWelcome
User Name	bala.gupta
Password	You can find the credentials from file ERPIntegrationWorkshopEnv.txt



2. Click on ->Navigator. Click on More. Click on Scheduled Processes.



The screenshot shows the Oracle vision Navigator interface. The 'Tools' menu is open, and the 'Scheduled Processes' option is highlighted with a red box.



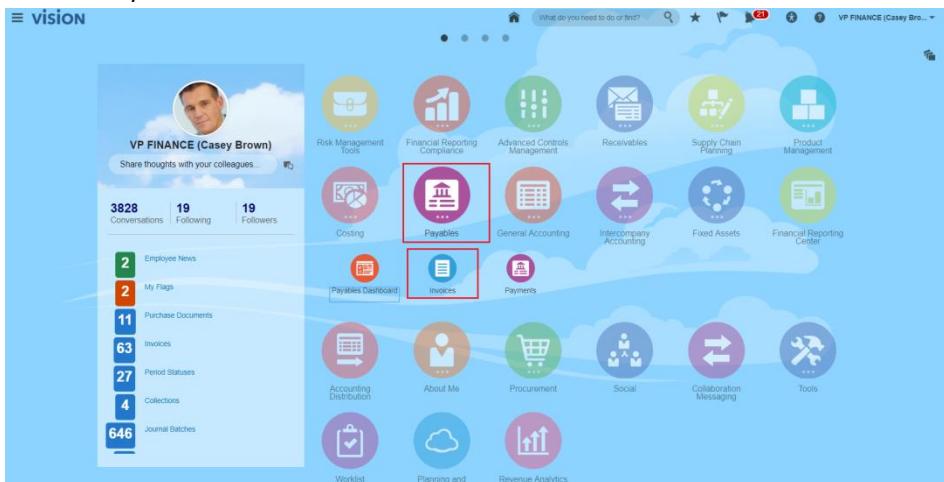
The screenshot shows the 'Scheduled Processes' page. It includes a search bar, a 'Saved Search' dropdown set to 'Last 24 hours', and a table listing three scheduled processes:

Name	Process ID	Status	Scheduled Time	Submission Time
Upload Interface Error and Job Output File to Universal Content Management	1241416	Succeeded	7/11/17 12:49 PM UTC	7/11/17 12:49 PM UTC
Import Payables Invoices Report	1241415	Succeeded	7/11/17 12:49 PM UTC	7/11/17 12:49 PM UTC
Import Payables Invoices	1241414	Succeeded	7/11/17 12:49 PM UTC	7/11/17 12:49 PM UTC

- Now let us verify the Invoice that is created in ERP Cloud. Login to ERP Cloud Service using following details. The Scheduled processes are specific to user. Login with the same user which is used to create ERP connection to check scheduled process.

Field	Enter
URL	<a href="https://<host>/homePage/faces/AtkHomePageWelcome">https://<host>/homePage/faces/AtkHomePageWelcome
User Name	casey.brown
Password	You can find the credentials from file ERPIntegrationWorkshopEnv.txt

4. Click on “Payables -> Invoices”



5. Click on search icon on right hand side vertical tabs and provide invoice number to verify whether the invoice got created?

The screenshot shows the 'Invoices' screen. At the top, there are three tabs: 'Payables Dashboard', 'Invoices', and 'Payments'. The 'Invoices' tab is selected. Below the tabs, there are four summary boxes: 'Scanned' (0, 0, 17), 'Recent' (24 Hours, 0), 'Holds' (68 Validation, 8 Purchasing, 0 Other), and 'Prepayments' (0, 0, 24). A search bar on the right is highlighted with a red box. The search field contains the invoice number '9606'. The search results table below is empty, showing the message 'No data to display.'

The screenshot shows the 'Manage Invoices' screen. At the top, there are tabs for 'Search Results' and 'Advanced' search. The search bar contains 'Search: Invoice'. The main area shows a table of invoices. The table header includes columns: Actions, View, Edit, Delete, Detach, Validate, Pay in Full, Approval, Post, Invoice Number, Invoice Date, Creation Date, Supplier or Party, Supplier Site, Unpaid Amount, Invoice Amount, Applied Prepayments, Invoice Type, Notes, Validation Status, Approval Status, Holds, and Details. Two rows of data are shown, both highlighted with a red box. The first row has Invoice Number 960610, Supplier or Party Staffing Services, and Supplier Site Staffing US1. The second row has Invoice Number 960611, Supplier or Party Staffing Services, and Supplier Site Staffing US1.

Invoice Number	Invoice Date	Creation Date	Supplier or Party	Supplier Site	Unpaid Amount	Invoice Amount	Applied Prepayments	Invoice Type	Notes	Validation Status	Approval Status	Holds	Details
960610	3/3/17	7/11/17	Staffing Services	Staffing US1	6,200.00 USD	6,200.00 USD	0.00 USD	Standard		Not validated	Not required	0	View
960611	3/4/17	7/11/17	Staffing Services	Staffing US1	7,200.00 USD	7,200.00 USD	0.00 USD	Standard		Not validated	Not required	0	View

6. Now let us check the Error Scenario. First, let us look at the VBCS application in run mode. From Oracle Integration (OIC) home page click on **Visual Builder**, Open the **Invoice Error Handling Portal** application.

The screenshot shows the Oracle Visual Builder Cloud Service interface. At the top, there's a navigation bar with 'ORACLE' and 'Visual Builder Cloud Service'. Below it is a search bar labeled 'Filter by Name' and a dropdown for 'Status' set to 'All'. There's also a filter for 'Administered by me'. On the right, there are 'Import' and 'New' buttons. The main area displays a table of applications:

Name	Status	Version	Last modified	Action Column
Invoice Error Handling Portal	● Development	1.0	1 hour ago	Run
ReceivablesFundTracking	● Development	1.0	13 days ago	Run

A context menu is open over the first row ('Invoice Error Handling Portal'), with the 'Run' option highlighted.

Click on Run at the top right corner to run the application.



The screenshot shows the 'Invoice Error Details' page in the VBCS application. The table has columns: Created By, REJECT_LOOKUP_CODE, PARENT_ID, and PARENT_TABLE. There are two rows of data:

Created By	REJECT_LOOKUP_CODE	PARENT_ID	PARENT_TABLE
narayana.pedapudi@oracle.com	INVALID_SUPPLIER	111100	AP_INVOICES_INTERFACE
narayana.pedapudi@oracle.com	INVALID_SUPPLIER	111101	AP_INVOICES_INTERFACE

Please observe there is no duplicate data with your invoice id that you have executed in the earlier run.

- Now let us run the **Invoice Bulk Import to ERP <student_id> <class_id>** flow again, submitting the same data from the ftp location. The idea is to get import the same data again so that there is a duplication and ERP rejects the duplicates. That rejected data can be displayed in the VBCS application.

Please observe the data in the VBCS application, now we have two duplicate invoice IDs.

The screenshot shows the 'Invoice Error Details' page in the VBCS application. The table has columns: Created By, REJECT_LOOKUP_CODE, PARENT_ID, and PARENT_TABLE. There are five rows of data:

Created By	REJECT_LOOKUP_CODE	PARENT_ID	PARENT_TABLE
BALA.GUPTA	DUPLICATE INVOICE NUMBER	960610	AP_INVOICES_INTERFACE
BALA.GUPTA	DUPLICATE INVOICE NUMBER	960611	AP_INVOICES_INTERFACE
narayana.pedapudi@oracle.com	INVALID_SUPPLIER	111100	AP_INVOICES_INTERFACE
narayana.pedapudi@oracle.com	INVALID_SUPPLIER	111101	AP_INVOICES_INTERFACE

You leveraged rich capabilities of Oracle Integration (OIC) such as Scheduled orchestration, App-driven (trigger-based) integration, ERP Cloud adapter, FTP adapter, Data Mapper, Actions such as Notification, Invoke etc, Configuring Business Tracking Identifiers and monitoring running flows. Configuring VBCS application, reviewing the callback zip file and pushing the data to an application designed in VBCS.

You could now leverage this knowledge to design, activate and monitor several use cases for ERP Cloud Bulk Data Import scenarios as well as multiple FTP-based integrations.

Trouble Shooting

Here are some of the trouble shooting tips for this lab.

1. Verify the callback integration details in the integration where the import job is invoked. See the Response page of the Adapter Endpoint Configuration Wizard. Also, ensure that the callback integration is activated.

The screenshot shows the 'Configure Oracle ERP Cloud Endpoint' interface. The left sidebar has tabs: Basic Info, Actions, Operations, Response (which is selected and highlighted in blue), and Summary. The main area has sections for Notifications (with a note about providing notification preferences for job completion status), Enable Callback (with a checked checkbox), and Callback (with fields for Integration Flow Identifier and Integration Flow Version). Below this, two integration definitions are listed: 'Invoice Bulk Import Callback Review 96 06 (1.0)' and 'Invoice Bulk Import to ERP 96 06 (1.0)'. Each definition has a 'TRACE WITH PAYLOAD' button.

2. Security exception related to certificates

```
Caused by: oracle.wsm.security.SecurityException: WSM-00138 : The
path
to the certificate is invalid
Validation failed for the certificate "Subject DN:- CN=service,
DC=us,
DC=oracle, DC=com, Serial Number:- 1456606801892, Issuer DN:-
CN=CertGenCA,
OU=FOR TESTING ONLY, O=MyOrganization, L=MyTown, ST=MyState, C=US"
at
oracle.wsm.security.jps.WsmKeyStore.throwFailMsgForCertPathValidati-
on
(WsmKeyStore.java:831)
at
oracle.wsm.security.jps.WsmKeyStore.validateCertificatePath (WsmKeyS-
tore.java:798)
at
oracle.wsm.security.jps.WsmKeyStore.validateCertificatePath (WsmKeyS-
tore.java:743)
at
```

```
oracle.wsm.security.policy.scenario.util.ScenarioUtils.verifyAssertionIssuerCert(ScenarioUtils.java:5263)
... 42 more
Caused by: java.security.cert.CertPathValidatorException: Path does
not chain with any of the trust anchors
at
sun.security.provider.certpath.PKIXCertPathValidator.engineValidate
(PKIXCertPathValidator.java:208)
at
java.security.cert.CertPathValidator.validate(CertPathValidator.jav
a:279)
at
oracle.wsm.security.jps.WsmKeyStore.validateCertificatePath(WsmKeyS
tore.java:788)
... 44 more
```

Solution: Import the certificates as message protection certificates

3. Security exception related to user authentication

```
Caused by: javax.security.auth.login.FailedLoginException:
[Security:090304]Authentication Failed: User CASEY.BROWN
javax.security.auth.login.FailedLoginException: [Security:090302]
Authentication Failed: User BALA.GUPTA denied
```

Solution: The user has not been created in Oracle Integration Cloud Service

4. Check for a connectivity issue between the Oracle ERP Cloud application and Oracle Integration Cloud Service.

Solution: Follow steps mentioned in the documentation [here](#).